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ABSTRACT

This report summarizes the available evidence on approaches and strategies of colleges and universities in their efforts to improve minority student access to higher education through school-college partnerships. The analysis distinguishes between partnerships whose efforts are focused on serving students directly and partnerships that promote school improvement or teacher renewal. Part 1 considers the more common student-focused initiatives and reviews target population, point of initial contact, nature of contact, academic focus, service delivery plant, relationship with regular educational system, transmission of admission and financial aid information, exposure to college experiences, parental role, discipline or career focus. mentoring, tuition or admissions guarantee, and earning college credit. The report argues that student-focused programs cannot meet broader objectives for increased minority student access to college. Part 2 considers the systemically focused partnerships that address teacher renewal, curriculum development and school reform issues. This review covers nature of school and college involvement, focus, student components, objectives, governance structure, national and regional efforts, funding, and incentives. (Contains over 140 references.) (JB)

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A Shared Responsibility:

College/School
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Serving
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A SHARED RESPONSIBILITY:

COLLEGE/SCHOOL PARTNERSHIPS SERVING MINORITY YOUTH

Bernard J. McMullan
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CONTENTS

Page

ACKNOWLEDGEMENTS v

INTRODUCTION 1

PART ONE: STUDENT-FOCUSED PROGRAMS 3

SECTION I: INTRODUCTION 5

SECTION II. CRITICAL CHOICES IN DESIGNING STUDENT-FOCUSED PROGRAMS 6

TARGET POPULATION 6
POINT OF INITIAL CONTACT WITH YOUTH 9
NATURE OF CONTACT WITH YOUTH 11
NATURE OF ACADEMIC FOCUS 13
SERVICE DELIVERY PLAN 14
RELATIONSHIP WITH REGULAR EDUCATIONAL SYSTEM 16

SECTION III. CONTENT AND ELEMENTS COMMON ACROSS PROGRAMS 18

TRANSMISSION OF COLLEGE ADMISSIONS AND FINANCIAL AID INFORMATION 18
EXPOSURE TO COLLEGE EXPERIENCES 19
PARENTAL ROLE 19
DISCIPLINE OR CAREER FOCUS 20
MENTORING 20
TUITION AND/OR ADMISSIONS GUARANTEE 20
OPPORTUNITIES TO EARN COLLEGE CREDIT 21

SECTION IV. CONCLUSIONS ABOUT STUDENT-FOCUSED PROGRAMS 22

IMPLICATIONS 23

PART TWO: INITIATIVES ADDRESSING TEACHER RENEWAL, CURRICULUM REVISION AND SCHOOL REFORM 25

SECTION I: INTRODUCTION 27

SECTION II. MAJOR FOCUS 28

PROFESSIONAL DEVELOPMENT OF TEACHERS 28
CURRICULUM AND PROFESSIONAL DEVELOPMENT 31
BROADER SYSTEMIC EFFORTS 33

Page

SECTION III. KEY VARIATIONS 34

NATURE OF COLLEGE INVOLVEMENT 34
NATURE OF SCHOOL INVOLVEMENT 36
SUBJECT - DISCIPLINE FOCUS 38
INCLUSION OF STUDENT COMPONENTS 38
STATED OBJECTIVES OF PARTNERSHIPS 38
GOVERNANCE STRUCTURE 39
PARTICIPATION IN NATIONAL AND REGIONAL EFFORTS 39
PARTNERSHIP FUNDING 39
INCENTIVES 39

SECTION IV. CONCLUSIONS ABOUT SYSTEMICALLY FOCUSED INITIATIVES 42

STRENGTHS OF TEACHER, CURRICULUM AND SCHOOL-FOCUSED APPROACHES 42
IMPLICATIONS 42

CONCLUSION 44

REFERENCES 46

ENDNOTES 54

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INTRODUCTION

College access remains one of the major challenges for minority youth in our nation. Although substantial gains in minority student college entrance were achieved in the 1960s and 1970s, these gains stagnated and perhaps deteriorated in the subsequent decade. A report recently released by the American Council on Education (Carter and Wilson, 1992) stated that minority enrollment in college increased between 1985 and 1990 but noted that the gains were fragile and could be wiped out as federal and state support diminished and as the full effects of the Bush recession were felt. Thus, while actual numbers of minority college students increased, two essential factors--high school completion rates and college enrollment rates still lagged far behind those of white students. The ACE report notes that the 1988 high school graduation rate for white students was 71 percent while those of African American and Hispanic students were 64 percent and 48 percent, respectively. Thus, proportionately fewer African American and Hispanic students are part of the high school graduate pool. Further, the college entrance rate shows a similar gap. While 43 percent of all white high school graduates enrolled in college, the college enrollment rates of African American and Hispanic high school graduates were 29 percent and 27 percent, respectively (Carter and Wilson, 1992: 7).

Even these dramatic discrepancies, though, mask the differences in college attendance between white and minority students. While both minority and white students attend the full range of postsecondary educational institutions (i.e. training programs, community colleges, junior colleges, four-year colleges and universities), minority students are much less likely to enroll in four-year colleges than are white students. More than 80 percent of white students in college are enrolled in four-year institutions; less than 55 percent of minority students are enrolled in four year schools (Carter and Wilson, 1992: 43).

Past approaches for increasing college attendance that succeeded with other excluded groups--white working class, European immigrants, women--have not proven especially successful among African-American and Hispanic youth.

During the 1980s, a variety of approaches were developed to increase rates of minority enrollment. Among the more interesting were partnerships between primary and secondary schools and colleges to encourage interest and improve preparation. Literally scores of these initiatives have emerged during the past decade (Wilbur and Lambert, 1991).

Partnerships are exciting because they involve adjacent streams of the educational pipeline used to convey youth from childhood to adult life. Such enterprise represents the melding together of the resources, experience and knowledge of two educational communities in the common interest of youth. But what has been the benefit of these partnerships for youth? And for the institutions themselves?

This report summarizes the available evidence on approaches and strategies of colleges and universities in their efforts to improve minority student access. In theory, the most important question about these initiatives is what techniques have proven effective in meeting the objective of increased minority access to college. Current state-of-the-art programming efforts to increase minority access are far from maturity and evidence on effectiveness is scant. Available information--anecdotal, case study-based and informed opinions--suggest that much more needs to be learned about possible programmatic strategies. No persuasive evidence has emerged that a particular approach or technique is unquestionably effective. This document seeks to draw on existing examples and available evidence to suggest promising directions in appropriate programming.

The bulk of the work looks across programs in an effort to provide information and insights about common experiences and lessons. The report addresses several central questions:

- What are the range and characteristics of partnerships between colleges and schools to improve minority student access through initiatives addressing broad school changes?
- What are the significant variations in program dimensions represented in the range of partnerships?

> What are the programmatic options and what evidence exists about their benefits? In particular, how do initiatives deal with central questions of programmatic focus, diffusion and incentives for participation?

This effort has two objectives:

- To offer strategic guidance to communities, universities, colleges and school districts as they develop initiatives to increase minority student access to postsecondary education; and
- To direct those interested in such partnerships to resources that may help them refine, strengthen or expand their existing and planned initiatives using the experiences of others.

Analyses undertaken represent a compromise between a full-blown research study addressing the range of existing programs–encompassing case studies of initiatives and primary data collection–and the compelling need to begin a dialogue about findings and analyses that explore dimensions and issues that are relevant across all programs. An extensive review of research and policy literature was conducted to identify the major theoretical and operational issues. A comprehensive, exhaustive study of college/school partnerships is beyond the scope of the present work. However, the synthesis presented represents a significant step towards understanding critical elements and issues facing such initiatives.

It is important to discuss the process by which initiatives were identified for inclusion in our analyses. Based upon a computer-assisted review of educational and popular literature sources, the research team identified programs involving colleges and universities that sought to improve minority student access to college. It supplemented this initial list with nominations of experts in this area.[1] All program sources identified were contacted to obtain descriptive and evaluation materials. These materials were reviewed. Follow-up telephone calls were made for additional information and to clarify questions the research team had about program operations, evaluation techniques and current program status. It is certainly the case that many of the programs described here have evolved since materials about them were received and reviewed. Although any particular reference to a program may no longer be precisely accurate, the description remains a useful anchor for understanding the organizational or implementational dilemmas facing other school/college partnerships.[2]

Report Organization

At the onset of this study, a distinction was made between partnerships whose efforts were almost exclusively focused on serving students directly and those partnerships that sought to promote school improvement or teacher renewal. This distinction is important both conceptually and analytically since the dimensions, operational challenges and basic objectives of the two approaches are substantially different.

The basic assumption underlying initiatives aimed at fostering school improvement or teacher renewal is that by advancing change within the system, or its individual components, the goal of improved educational opportunities for all students can be achieved. This contrasts with student-focused initiatives that often target specific students for direct services, such as counseling on financial aid procedures and admission policies and requirements; tutoring and/or mentoring by college students; and opportunities to earn college credit prior to enrollment.

Although school/teacher-focused initiatives seek to address academic preparation for students, their approach usually contrasts with student-focused approaches by purposely looking to effect long-term changes of educational conditions and environment in which current and future students are educated. The approaches taken by school/teacher-focused initiatives include training and retraining both prospective and existing teachers in curriculum and instructional methodologies; revising curriculum; and broader school reform.

Consequently, this report is divided into two distinct sections that separately treat these broad types. Part One considers the more common and familiar student-focused initiatives. Part Two considers the equally important–and perhaps, potentially more significant–systemically focused partnerships that address teacher renewal, curriculum development and school reform issues.

PART ONE: STUDENT-FOCUSED PROGRAMS

Target Population

Point of Initial Contact with Youth

Nature of Contact with Youth

Nature of Academic Focus

Service Delivery Plan

Relationship with Regular Educational System

SECTION I: INTRODUCTION

Student-focused initiatives reflect a decision to take a direct approach to increasing minority student access to college. In design and delivery, these initiatives seek to supplement (and in some cases, supplant) normal or existing educational services with activities and support that program planners believe will increase students' chances for college admission. In contrast, initiatives aimed at fostering school improvement or teacher renewal seek to change the environment in which students are taught in the expectation that a renewed and improved educational setting will produce more minority students interested in and prepared for college.

From the perspective of those designing and implementing student-focused initiatives, it would be appropriate to ask four important questions related to program effectiveness:

- Are student-focused initiatives effective in increasing the proportion or number of minority students who attend college?
- Do student-focused initiatives provide differential benefits to particular types of program participants?
- If so, what implications do these varying impacts have for appropriate targeting strategies and program efficacy issues?
- What program components are critical for ensuring increased minority student access to college?

A review of existing initiatives suggests that the breadth, quality and rigor of research about them and their effectiveness is highly limited.[3] Overall, initiatives have little or no evaluative evidence available that satisfactorily addresses the questions above. For example:

- Several have qualitative process assessments of program implementation.
- Very few initiatives track the range, depth and frequency of services provided to youth through the initiative.
- Some initiatives can provide preliminary summaries of programmatic outcomes (outputs).
- Almost half of the initiatives reporting outcomes for participants also offer comparison data for youth not served by the program. In almost all instances, the comparison group composition (i.e. students who left or dropped out of the initiative; non-selected applicants; students enrolled in the target school, etc.) seriously undermines the data's utility for assessing program effectiveness. Since the validity of these comparative results are weak, they cannot speak to overall effectiveness, or to differential effects for particular subsets of participants, or assess the benefits of separate program components.
- Only one or two of the initiatives have been evaluated using standard quantitative research design approaches.[4]

Faced with the relative paucity of consistent and reliable research-based evidence on effectiveness, this document cannot answer questions about program or component effectiveness based on direct evaluations and assessments of existing programs. Rather, it seeks to draw inferences and conclusions about reasonable programmatic approaches and strategies that college-school partnerships could undertake. This section offers several principles that constitute a framework against which a number of design choices can be assessed or considered.

The principles are derived from the experiences of student-focused programs. They are supplemented by research related to academic achievement in secondary school and studies of initiatives and programs that serve minority and disadvantaged youth. These findings suggest that student-focused initiatives can have the greatest chance to improve rates of minority student college attendance by:

- Focusing resources toward youth who, in the absence of the program, would have been unlikely to enter college;
- Providing a system of comprehensive services that meet varying participant needs. Embedded within this system is a clear strategy for delivering appropriate services to each student.
- Offering program services in a sustained manner over a period that is sufficient to ensure that students develop the skills and experiences they need to apply, enroll and succeed in college;
- Developing appropriate links or articulation between the initiative and the regular educational system to ensure that the resources of both are directed

towards the goal of increased minority access to college;

- Offering opportunities on a broad enough scale to increase the potential for affecting the college attendance rates of minority youth in a community, and on a scale that can justify the provision of specific program components to subsets of participants in need of particular services.

At face value, these principles appear self-evident. However, none of the programs reviewed for this section successfully addressed every principle described above. Most dealt with two or three. Nevertheless, the experiences of current programs point to challenges and innovative approaches that address these principles.

Within this principle-driven framework several questions are posed:

- What are the critical design elements that most directly affect the ability of initiatives to increase minority student access to college? Within these design elements, what is the range of choices facing program planners and which choices are best?

- What are the implementation challenges that arise when planners select the preferred approach within these critical design elements?

- What are some of the most common program components found in these approaches and what are some of the innovative strategies that programs have used to implement them?

SECTION II. CRITICAL CHOICES IN DESIGNING STUDENT-FOCUSED PROGRAMS

This section discusses several critical design choices in developing student-focused initiatives. They are:

- Target population;
- Point of initial contact with youth;
- Nature of contact with youth;
- Nature of academic focus;
- Service delivery plan; and
- Relationship with regular educational system.

Each of the six organizational design issues has important implications for likely program impacts on participants and on the overall structure and coherence of an initiative. The discussion below considers each design choice within the context of achieving increased minority student access to college. Although the choices are intricately woven together, a decision about one does not perfectly determine decisions about other design choices. The discussion of each design choice follows a standard format:

FRAMEWORK FOR ASSESSING STUDENT-FOCUSED PROGRAMS

Focus towards youth in need of assistance

Provide comprehensive services tailored to participant needs

Offer sustained program services

Link the initiative and the regular educational system

Offer opportunities on a broad enough scale to affect college attendance rates and to justify specific program components

- A consideration of why the dimension is important;

- A review of the range of available options, noting frequency and examples from the initiatives studied;

- A discussion of the option or options that appear most consonant with the objectives of increased minority student access to college as suggested by the principles described in Section I; and

- A consideration of some of the operational challenges associated with the preferred option, noting examples of innovative solutions that have been used to meet these challenges.

TARGET POPULATION

Decisions about eligibility criteria for participation in a student-focused program is, ultimately, the most important design choice facing planners. The definition of which students will be served may determine many of the other

dimensions of an initiative, including the point of initial contact, the type of services provided, the strategy for delivering services and in a fundamental way, the definition of programmatic success.

The level of selectivity among programs studied varies greatly but can be grouped into three broad categories. Highly selective programs are defined as: initiatives that target strongly performing students in the final years (11th and 12th grades) of high school; initiatives that set exceptionally rigorous admissions criteria--B+ or better average, 85 percent attendance, or high motivation--for students in the initial years of high school; or, initiatives that through their admissions process select a small number of participants from a very large pool of applicants.

Moderately selective programs include those that target borderline students at any grade who have demonstrated some potential for college-level work. Such programs may serve B and C average students in higher grades or target 9th graders whose performance is average, but who have exhibited some evidence of academic potential in testing or performance in earlier grades.

Even if successful, highly selective approaches have the potential for only small increases in college attendance rates among minority students, since they will serve students who would likely have attended college anyway.

Low-selectivity programs are those initiatives that offer virtually all students in a school or district an opportunity to receive services; projects that begin to serve students before many have dropped out; or initiatives that explicitly seek to serve students at risk of dropping out. Thus, programs that begin in middle school years with no or moderate entrance criteria would be considered low-selectivity initiatives.

About half of the initiatives studied use moderately selective targeting approaches. For example:

- Connecticut College High School Students Advancement Program enrolls 9th grade students who are in the third or fourth deciles of their class whom counselors and school staff believe might benefit from the program (Ferrari, 1990).

- The Macy Foundation initiative at Hillhouse High School in New Haven sets relatively low standards for entry, requiring that students read no more than two levels below grade but demonstrate some degree of motivation and commitment to participate in a college preparatory program (Braestrup, 1988).

Highly selective and low-selective programs were equally represented among programs. Highly selective initiatives include:

- The Macy Foundation initiatives at A. Philip Randolph, DeWitt Clinton and Clara Barton High Schools in New York City. Each initiative requires high grade point averages and standardized test results. The high selectivity of these initiatives is demonstrated by the large pool of applicants for a limited number of slots each year. Typically, 4,000 students applied for 120 openings in the program at A. Philip Randolph High School (Cromer and Steinberger, 1990a).

- Project SOAR in New Orleans targets juniors and seniors who have demonstrated an aptitude and interest in pursuing a career in science or medicine but may need supplemental college preparatory support to succeed in college (Carmichael, 1982).

- Project Advance specifically targets Syracuse high school seniors with a B average or higher (usually in the top 20 percent of their class) and provides them an opportunity to take college credit-bearing courses at minimal cost (Project Advance, no date).

Programs using low-selectivity targeting approaches came in several forms including:

- Middle College High School, which directly targets 9th grade students at risk of dropping out on the basis of poor academic performance, multiple retentions-in-grade and low attendance (Lieberman, 1986);

- Baltimore ACE program, which serves students in middle school and seeks to serve students who are doing average-level work. It targets neither a gifted and talented population nor a population in need of substantial remediation.

- The partnership between the University of Rhode Island and the School District of Providence, which includes an early dropout prevention component, Project Discovery, targeted at students in grades 5 through 8 who score in the 40th to 55th percentile on national standardized tests. The partnership offers additional support to at-risk students in later grades through its Alternative Learning Project (University of Rhode Island/Providence School Department Partnership, 1990).

As noted, it is difficult to posit a preferred approach concerning program targeting. Decisions about target population reflect in many ways a philosophical stance about the goals and objectives of a student-focused initiative seeking to increase minority student access to college.

From one perspective, if one wishes to have an immediate impact on college attendance rates of minority students, it may be appropriate to target students who are just below a threshold of interest and performance that, if crossed, would greatly enhance these students' likelihood of entering college. Such a perspective assumes that relatively intense efforts directed at a well-defined population with moderate to strong evidence of performance will yield a significant increase in the number of minority students attending college. Further, by targeting easier-to-serve youth, such approaches can sustain participant and sponsor interest because of their perceived potential for immediate, tangible results. It is important to note, however, that the apparent level of success of such strategies may be fleeting since many students targeted by the approach may have attended college anyway.

Another perspective contends that student-focused initiatives seeking to increase minority student access to college must take a more expansive approach to increasing the pool of eligible minority students. Proponents of this perspective ask whether approaches targeted at the "near-ready" are essentially serving youth who would have entered college. They question whether such a narrowly targeted approach will yield sufficient students to substantially redress the unequal college-going rates of minority youth. They believe initiatives must cast a broader net to include students whose performance under current conditions would fall substantially short of levels needed to advance to college.

Such a perspective implies several design and implementation decisions. First, it requires that initiatives begin sufficiently early in a student's career before dissatisfaction and disenchantment with education leads the students to drop out or to stop working to achieve educational success. Second, by supporting an early intervention start, this perspective implies that programming must be sustained and multi-faceted. Third, it suggests that the content of the initiative must emphasize structured, long-term academic preparation as the foundation for college attendance.

Definitive proof of the efficacy of non-selective, moderately selective or highly selective approaches does not exist. However, some evidence and common sense suggest that a strategy that leans towards less selective criteria for entry into the program may be prudent in reaching the ultimate objectives of these initiatives--an increase in the number and rate of minority students enrolling in college.

Highly selective approaches, even if successful, have the potential for only incremental increases in college-going rates among minority students since, by being so selective, they will serve students who would likely have attended college anyway. Evidence from an evaluation of Career Beginnings, a moderately selective program, suggests that Career Beginnings often duplicated services that were available to students in the control group and thus would also have been available to Career Beginnings participants as well (Cave and Quint, 1990). Consequently, the Career Beginnings evaluation findings suggest only minimal program impacts on college-going rates among participants.

Clearly, there are important operational challenges facing programs that have low selection or admissions criteria.

- A decision to have minimal selectivity in admissions mandates that the program serve youth early in their educational careers for two reasons. First, an early start permits programs to serve students before they reach the critical dropout period. Research on dropouts suggest that many students leave school before the 11th grade. Thus, a program targeted at students in later grades is already selective as a result of student attrition. Second, in order to adequately prepare students for access to college, initiatives must allow sufficient time for academic preparation. Targeting poorly achieving 11th and 12th grade students would seem futile.

- Targeting a broader pool of students for services also implies less assurance of success in every case than would be expected among programs that are highly or moderately selective. Factors beyond the control

of the initiative will cause attrition from the program reducing its ability to place each student in college. At face value, more selective initiatives may appear to achieve better results than strategies that are less selective since more selective initiatives usually "place" more students in college. However, a rigorous cost/benefit analysis will likely reveal that the net benefits of highly selective strategies are substantially reduced when controlled for the college attendance rates of similarly talented youth not served by the program.

- A decision to broaden the pool of participants will likely require more funding because:
  - Youth will be served for a longer period of time;
  - Programming for multiple years at multiple levels will need to be developed to sustain student interest; and
  - Greater numbers of students will be initially served.

- Non-selective or low-selective programs face serious challenges related to coordination of services and student attrition. Sustaining a clear image or identity as programs also will affect them since they may lack a perception of "specialness" among students, teachers and parents.

POINT OF INITIAL CONTACT WITH YOUTH

Decisions about targeting have significant implications for the point at which candidates begin to participate in student-focused initiatives. Deciding on when a program will begin to serve students has implications also for the type of services that can be provided, the overall anticipated cost per participant, and the type of links an initiative may need to sustain with schools.

The programs reviewed can be roughly classified into three groups on the basis of when they begin to operate: at the middle school level; at the start of high school (grades 9-10) and toward the end of high school (grades 11-12). About a third of the programs studied reported serving students beginning in middle school grades. Examples include:

- Project PRIME, in Arizona, starts at the 7th grade with a cohort of above-average candidates, but allows other students to enter in later grades as well. The program offers them the opportunity to participate in four different successive components each tied to a particular grade level.
  - "Algebridge" is an accelerated mathematics program available to 7th and 8th graders;
  - MESA identifies students with aptitude for mathematics, engineering and science in grades 9 through 12, and offers a 10th grade summer enrichment program;
  - Test Skills is a 15-week course for 10th grade students in preparation for college admission, to familiarize students with examination formats;
  - Options for Excellence offers advanced placement, with college credit, for the highest performing students in the later years of high school (Project PRIME, no date).

- Gateway to Higher Education serves more than 900 predominantly African-American, B-average and above students beginning in junior high school, but also allows others to join in later grades. This initiative offers year-round academic tutorial programs in junior high and high schools in New York City, and on the campus of the City University of New York Medical School (Gateway to Higher Education, no date). The program is also affiliated with a summer enrichment program provided by Connecticut College, and offers summer job placements and internships (Gateway to Higher Education, 1989/90).

- The Young Scholars Program conducted by Ohio State University is based on "I Have A Dream" approaches and serves low-income minority students from nine urban centers in Ohio. Using a cohort approach, Young Scholars serves students beginning in grade 7 through grade 12 using both school-based tutoring and academic summer institutes at the University campus (Young Scholars Program, no date).

The bulk of the programs reviewed begin to serve students at the start of their high school careers. Examples of initiatives that serve students beginning at 9th grade are:

- The Early Identification Program recruits students in 8th grade for its program that starts in 9th grade.

- The BRIDGE partnerships between Wabash and George Washington High School enrolls students in 9th grade.

- CHAMP II in Wisconsin targets students as early as 8th grade and offers them summer and school year events.

- The Middle College initiatives offer students an alternative high school experience beginning in grade 10.

Only a few of the programs studied provide services beginning in grades 11 and 12. The most notable include:

- Career Beginnings, which begins offering college preparatory support to students in 11th grade;

- Xavier University's (New Orleans) SOAR, which targets juniors and seniors with an interest in science or medical careers;

- College Now of Kingsborough Community College, which provides enrichment, college preparatory and credit-bearing courses to middle-performing 11th and 12th graders (Wilbur, et al, 1987);

- Northern Arizona State University's Pathway to Opportunity, which serves 11th and 12th graders in Yuma high schools (Lozano, 1990).

Given the objective of increasing the rates of minority student postsecondary attendance and recognizing the clear link between starting point and targeting, the preferred strategy related to starting point is earlier rather than later. However, the distinction between starting at grade 6 or starting at grade 9 are less precise.

Certainly, beginning with 6th graders can have the potential for influencing the life chances of students before they make educational and personal decisions that place them at risk of dropping out of school. Further, starting at the middle school can permit students to see links between school performance and personal objectives.

Programs that begin serving students early in middle school must develop multiple years of programming and curriculum to serve students throughout their academic careers. . . . Early starting initiatives will be called on to address a broad range of student needs--academic, social and personal.

A case for starting at 9th grade can also be made. For many students the potential for being at-risk usually has not become severe and relatively few students have dropped out before entering 9th grade. Also, starting at the 9th grade may be more feasible from an operational standpoint. This may be especially true in communities in which the feeder patterns between middle school and high school allow considerable diversity, complicating the delivery of services. Nevertheless, there remain important challenges facing programs that serve students as they approach or enter high school. Among the most difficult challenges are:

- Program Content and Focus: Programs that begin early in middle school have to develop multiple years of programming and curriculum to serve students throughout their academic careers. Such programs will likely address academic preparation and perhaps student self-esteem as their major focus, especially in the beginning. Direct services related to college applications, financial aid, etc. would likely not begin in earnest until later years. In contrast, initiatives targeting students in the final years of high school may tend to address direct college preparation (AP courses, college credit-bearing instruction) and also emphasize the mechanics of college selection, college admissions, financial aid applications and SAT/ACT preparation.

- Breadth and Level of Services: Programs that begin to serve students early will likely be faced with a heterogenous population of participants with varying abilities, interests and needs. Consequently, early starting initiatives will be called on to address a broad range of student needs--academic, social and personal. Composition of these needs will change throughout the program. Programs that serve students later in their academic careers may have an easier task since the target group will be more homogenous and the need for extensive services above and beyond the focus of the program may be less significant.

- Delivery Strategy. The plan for delivering program services can also be influenced by when the program begins to serve students. For example, programs serving students in the last two years of high school can (and usually do) adopt a cohort strategy that provides the same set or type of services to all participants. Programs that begin at the start of high school can often use a cohort strategy as well but must be concerned about student attrition and replacement (to the extent it affects what can be

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offered to participants), and diverging student needs so that a standard set or type of services fails to address the needs of large numbers of participants.

The implications of starting point on delivery strategy can be very apparent among initiatives that begin in middle school. Identifying and sustaining services to a cohort of students for six or more years requires substantial student monitoring and staff.[5] Program efficiencies can suffer. A solution to this issue is to define multiple separate components to meet the needs of different students and offer to students appropriate program components.

NATURE OF CONTACT WITH YOUTH

The third key design choice in developing a student-focused program is the way in which program services will be provided. Several strategies are apparent: continuous, year-round services; repeated, episodic events or activities; or a once-only intervention. How a program decides to offer services to participants has implications for program operations related to attrition, costs and service coordination; the intensity of relationship between the program and schools; and the realistic range and depth of training or information that can be provided.

Among the three strategies--continuous, episodic and once-only interventions--the most common approach, pursued by more than half of initiatives studied, was initiatives that provided a continuous flow of support or services to youth.

Two methods for providing sustained services to participants can be identified--integrating programs within schools and on-going activities that supplement regular school work. Examples of the initiatives that fully integrate the program within the school are:

- Middle College programs in New York City and replications in other communities in which students are enrolled in an alternative, magnet school.
- Macy Foundation initiatives in New York City in which students participate in a block-rostered curriculum of college preparatory classes.
- Johns Hopkins University/Dunbar High School's SOAR program in which students are rostered to a core curriculum of college preparatory classes and enrolled in a summer enrichment program (Hayman, 1988).

How a program offers services to participants has implications for program attrition, costs and service coordination; the intensity of relationship between the program and schools; and the realistic range and depth of training or information that can be provided.

Programs that provide sustained services by regularly supplementing school activities in a more limited manner include:

- College Now, which offers 11th and 12th graders the opportunity to take college preparation and credit-bearing courses after school and on Saturdays during the school year (Tyler et al, 1987; Wilbur, et al, 1987).
- ACE (Baltimore), in which students enroll in a daily class but also attend regular Saturday classes held at the college during the school year. They then may attend a summer program as well (Kane, 1991; ACE, no date).

Episodic approaches are less common but represent a possible way to provide services and support to students drawn from multiple and districts. The majority of episodic strategies attempt to provide some school-year support to participants as well. Examples of episodic initiatives are:

- The Jesse Jones Academic Institute, funded by Tenneco Corporation, in partnership with the University of Houston-Downtown, is one of several programs that serve students at Jefferson Davis High School in Houston. Each year, students have the opportunity to participate in an Academic Institute designed to teach leadership and study skills, developmental reading, critical thinking and analytic skills. Specific instruction in math and science for qualified students is available.
- Upward Bound offers remedial instruction each summer to large numbers of disadvantaged high school students. Students have the opportunity to return each summer beginning with 9th grade. Operating at 502 sites in 1989/90, Upward Bound may offer counseling to participants and periodic Saturday courses during the school year (U.S.

Department of Education, Office of Higher Education Programs, 1990; U.S. Department of Education, Office of Education and Program Management, 1980).

"Once-only" initiatives are relatively rare among the programs studied. Two of these once-only initiatives focused their activities within a single summer but then sought to provide continued support to participants during the rest of their academic careers:

- The Hispanic Mother-Daughter Program, conducted by Arizona State University in Tempe, provides 80 to 100 hours of writing and computer laboratory instruction to 8th grade girls and their mothers. After the coursework, participants are periodically invited to participate in weekend activities at the college that involve discussion sessions and tours of particular programs and facilities. Clubs for participants are formed at many of the high schools from which students have been recruited; a program coordinator offers counseling at each high school (O'Donnell, 1987).

- The Connecticut College program provides a three-week summer campus experience for youth from multiple schools but enlists the assistance of sponsoring teachers and college-based mentors and alumni to work with students in subsequent years.

Deciding on how services or supports will be delivered to participants--a once-only program; episodic events or programs; or sustained programming--both shapes and is shaped by the short- and longer-term objectives of the program. Sustained approaches are most likely to ensure that minority students prepare for and gain access to college. However, the challenges of delivering sustained services to students are significant.

A decision to provide sustained support almost necessarily implies high costs. The examples of sustained programming described above were of three major types--alternative schools; initiatives integrated within the regular educational system; or substantial supplemental support provided outside of school.

- The alternative school approach requires substantial long-term commitment and substantial funding to develop, implement and manage a new educational program that replaces a regular school. Further, it may be impossible to serve more than a fraction of students within a district by using an alternative school approach.

- The second approach to sustained programming requires a different type of commitment on the part of the initiative. Close partnerships with existing schools and school districts are likely to be drawn into larger school reform issues. While this may be a good development, such an expansion will require different skills and resources than initially envisioned and will demand considerable funding to be done well. However, unlike an alternative school approach, the initiative will have less control over day-to-day operations and decisions and will need to work in a delicate partnership with the regular education system.

- Finally, strategies that seek to supplement substantially regular school supports may appear to be less expensive initially. However, properly managing such strategies--including providing adequate incentives to keep students, parents and teachers involved; monitoring student performance; coordinating needed services, etc.--can quickly escalate the costs of such programs.

It is important to note that "once-only" and episodic strategies may be appropriate in some circumstances.

- Once-only interventions, to be effective, must likely be intensive opportunities that seek to impart a specific service or message to students. Such initiatives would likely be ineffectual if provided too early in a student's career, but might be very appropriate for infusing a particular college-going skill--test-taking, application strategies, study skills--at a later grade when students are about to enter college. Further, they may emerge as potent short-term kick-off components or completion events that are woven into a broader set of services to minority youth.

- Episodic strategies may be useful when initiatives seek to provide services that are drawn from multiple districts or schools in which separate sustained initiatives do not exist. Further, in communities where resources are limited or where close cooperation between universities and schools is difficult, episodic strategies may permit delivery of some services to students who normally would not receive them.

NATURE OF ACADEMIC FOCUS

Although specific content of information can vary across and within programs, the planning decision of the level or pitch of this content is critical. Like other design choices, determining the nature of academic focus must be based on planners' perspective on the type of information students need and, more important, can master.

The decision related to academic focus is also important because it has likely effects on other aspects of the program including its relationship with the regular educational system, its cost and its targeting criteria.

Among the initiatives reviewed, there is a considerable variation in the amount of attention placed on academic preparation. Almost all programs pursue a college preparatory strategy. Most programs exclusively offer a strong college preparatory program; several of these provide remedial support as well. Only a handful of initiatives offer remedial services only or provide no academic component.

Methods of delivery of college preparatory programs vary substantially among the initiatives:

- In New Orleans, Xavier University's Stress On Analytical Reasoning (SOAR) encourages students to participate in advanced courses (ChemStar, BioStar, etc.) in their initial years of high school and then enrolls them in a set of intensive college preparatory courses in science and mathematics[4] (Sevenair and Carmichael, 1988).

- The Bridge Program, in Indianapolis, serves students who demonstrate college potential, but are not considered gifted or talented, beginning in the 9th grade. Students attend enrichment activities on the campus of Wabash and other colleges, and are block-rostered during the academic year into a rigorous curriculum developed jointly by the faculties of Wabash College and Washington High School. Two-week summer sessions are offered, for high school credit after 10th and 11th grades, with a third week for those interested in science, funded by the Howard Hughes Medical Institute. The program also provides after-school tutoring and a liaison/counselor during the first year after graduation (Wabash-Washington Bridge Program, no date; Spelt, 1986).

- Project Advance in Syracuse takes a narrower focus for providing college preparatory assistance to students. It provides high performing students a "hassle-free" opportunity to take Advanced Placement courses for a limited fee in an effort to reduce the number of credits students will need for graduation.

Among programs that supplement their college preparatory program with remedial services are:

- The Macy Foundation's initiative, Pre-College Enrichment Program (PREP) at Hillhouse High School in New Haven, which offers remediation while maintaining high academic goals. It accepts motivated and committed 9th grade students who read as much as two levels below grade. The program provides substantial academic support to bring students to grade level and then channels them towards advanced courses within the high school. PREP places considerable emphasis on mathematics and encourages participants to enroll in the school's advanced placement calculus course.

- College NOW, a partnership between Kingsborough Community College and 14 high schools in Brooklyn, targets students in the middle third of their class. It provides remediation support to 11th and 12th graders who need it and offers college-level, credit-bearing courses to others. High school teachers involved in College NOW are hired as adjuncts by the college to teach after-school and weekend courses.

Finally, it is important to note that two of the largest initiatives included in this study–Upward Bound and Cal-SOAP–do not include a college preparatory program as a focus.

- Upward Bound offers participants a curriculum emphasizing basic skills mastery in each of the summer sessions they attend. Upward Bound specifically seeks to help students overcome academic deficiencies that may be barriers to their access to and success in college.

- The California Student Access Program (Cal-SOAP)–which reported serving more than 23,000 low-income and minority students in six regions of the state in 1987–distributes college admissions and financial aid information to students and provides opportunities for summer residential experiences,

field trips, supports peer tutors and advisors and offers workshops for parents and students (California Postsecondary Education Commission, 1987).

The choice of academic focus reflects planners' beliefs about the causes of the gap between minority student and dominant student college enrollment rates. Those who believe that the gap is a result of inadequate basic skills preparation may emphasize remedial approaches. Initiatives whose premise is that educational experiences of minority students fail to emphasize critical thinking and exposure to an academic approach may stress college preparatory services. Planners who conclude that lack of role models, examples and information about college are the root cause of the gap in college enrollment rates may accent college life exposure and student aspirations.

As noted above, the large majority of current initiatives have chosen to emphasize a college preparatory approach in delivering academic services to participants. This choice is consonant with ensuring that minority students have the essential skills and training they need for admission to college.

A strong emphasis on academic college preparation is difficult to sustain in initiatives that are not fully linked with the regular education system that serves students. All of the reviewed initiatives that are located and delivered through the school system emphasize a strong college preparatory approach. Delivering college preparatory classes outside a regular school setting is much more difficult and often is limited to a single course per summer.

The academic focus of a program reflects planners' beliefs about the causes of the gap between minority student and dominant student college enrollment rates.

Approaches that emphasize academic college preparation must contend with school/university turf issues. By providing such advanced classes, partnerships run a risk of suggesting that regular high school preparation is inferior or inadequate. Within the same context, providing participating students with this training can be seen to deny teachers themselves an opportunity to teach challenging material to well-performing students. Several initiatives--College NOW, Middle College, BRIDGE, etc.--have taken careful steps to reduce such turf issues by enlisting high school faculty as instructors.

SERVICE DELIVERY PLAN

Developing a strategy for providing services and resources to participants over time is an important, but often overlooked, decision within these initiatives. In general, most initiatives or programs that serve students (including those reviewed here but also including virtually all other types of programs) use a cohort strategy in which a group of youth is identified and then provided a standard set of services based on the number of years or cycles the cohort has been in the program. Thus, a programmatic decision on ways to provide services to youth is critical because it has significant implications for program size, range of services that can be provided and types of strategies needed to keep youth involved.

As noted above, the large majority of programs reviewed in this study use a cohort approach to providing services to youth. In general, this means that students are identified, enrolled or admitted to the program and then provided a relatively constant set of services each year. With only few exceptions, the cohort's particular year or cycle (i.e. first year, third summer, grade 11, etc.) substantially determines the type of services provided to students in that cohort.

Examples of cohort-based initiatives include:

- Upward Bound, which provides three consecutive summers of basic skills classes to participants;
- The Macy Initiatives and Middle College programs, which, embedded within existing school structures, provide courses and supports appropriate to each grade level.

In the exceptions to cohort-based approaches, different levels or types of support are provided to students within a single cohort based on individual needs or interests.

Most initiatives use a cohort strategy in which a group of youth is identified and then provided a standard set of services based on the number of years or cycles the cohort has been in the program.

Initiatives comprised of multiple separate programs that are coherently or purposively linked--and in which the range of services a student receives is based on need--are especially rare. The major example of this approach is the partnership between the University of Rhode Island and the School District of Providence. The initiative includes three separate programs. Students who complete the middle school program are encouraged, based on school performance and interests, to enter one of two programs available at the high school level.

Several initiatives, however, represent a more loosely connected set of programs whose services together span middle and high school years.[7] These initiatives often rely on counselors, parents or students themselves to determine in which program component a student might enroll next.

One example of a multi-programmatic strategy is St. Louis' Partnerships for Progress Bridge Program, which includes six separate components:

- Advanced Credit, in which students receive dual high school and college credit for courses they take at the high school taught by high school teachers. The program pays college tuition to register the credits.
- Shared Resources, which familiarizes students with university life and gives them coaching in test taking skills.
- Summer Link, which is designed for students entering 12th grade or newly graduated seniors offers a college credit-bearing enrichment course, assigns a mentor to participants, and offers testing preparation coaching.
- Summer Math and Science Academies,which are five-week enrichment sessions designed for 10th and 11th graders.
- Saturday Academies, which are designed for 11th and 12th graders who are members of math and science clubs in their schools. Participants receive guidance and counseling in testing preparation, first aid instruction, study skills and other supplemental activities.
- Math and Science Clubs in each of the participating schools are led by high school science or mathematics teachers. Emphasis is on career exploration and information (Windom, 1989).

Students can select the particular components to which they wish to apply. The initiative provides guidance on which components might be most suitable, but participation in one component does not necessarily put a student on a clear course through subsequent components.

A second example is PRIME in Arizona, which offers an assortment of program elements to students from 7th through 12th grades including: an accelerated mathematics program (Algebridge); MESA, that serves students with aptitude for mathematics, engineering and science during the school year and a summer enrichment program; a program for enhancing test-taking skills; and opportunities for advanced placement courses (Options for Excellence). Although Project PRIME's components are provided more or less sequentially, there is not a fully developed strategy to guide students from one level or component to another.

Both Partnerships for Progress Bridge and PRIME are ambitious efforts whose components may represent first steps towards developing an integrated, multi-faceted initiative.

Cohort and coordinated programs both move towards the objective of providing sustained, coherent services sufficient to produce positive effects for participants. For a variety of reasons, cohort strategies are most common. However, it is important to consider some of the ramifications and limitations of a cohort approach.

First, a cohort strategy permits clear identification of students served. But, at the same time, without explicit action to the contrary--i.e. permitting students to enter after the initial year--it may exclude students who would equally benefit. Cohort approaches, thus, have the potential of developing an insularity of effort that distances them from the regular educational system.

Second, initiatives based on cohort approaches tend to have relatively constant numbers of youth in each cohort (barring attrition). This means that program size increases solely as a result of added coverage. It further means, over the longer term, that the effects of the approach on college-going rates (assuming no substantial change in effectiveness

across cohorts) plateau as the first cohort achieves college-going age. This also implies that the effect of increased entering cohort size on the rate of college-going will not be felt until another complete cycle of the program has passed. Thus, for programs of short duration at the end of high school, the effect of increased cohort size will be one or two years. However, for initiatives that begin in middle school, doubling or tripling the entering cohort will not yield increased effects on the size of the student pool for five or six years.

Third, efforts to increase cohort size substantially within established programs may involve considerable organization stress as each successive level of the program cycle must accommodate the increased number of students served. Such organizational constraints may result in a relatively static cohort size of initiatives at or near the initial size of the entering cohort.

Fourth, attrition represents a substantial problem for cohort-based approaches in particular. Cohort-based programs are often challenged to serve students who transfer to another school; services an initiative can direct to such students are often uneven. Attrition also can undercut the vitality of cohort-based programs, especially those that work within schools since the number of students served in the program may fall below mandated classroom levels or may require that students who are not actually in the program be rostered into program-related classes to maintain these levels. While it is possible for cohort-based approaches to replace students who leave, such an approach can diminish overall program outcomes.

Launching initiatives that attempt to place a coherent structure of delivery across multiple separate programs also poses serious challenges. Substantial effort must be placed on articulation between the program components. Further, the system must develop a process for the transfer of students from one component to another. In addition, if one of the values of offering a set of programs is to serve students based on need, the initiative must develop a strategy that properly allocates students to these different programs but that guards against developing a rigid tracking system that works to the disadvantage of some or all participants.

RELATIONSHIP WITH REGULAR EDUCATIONAL SYSTEM

The connection between a student-focused initiative and the regular educational system has important implications for students and for the design of the initiative itself. For students, a strong link between a program and regular school may mean that activities, strategies and requirements are coordinated and coherent. Further, a strong link may reduce a sense of divergent goals between the two. For example, programs that are separate from school activities may cause some students to neglect regular school work since they regard college preparation and access as the program's domain.

From a programmatic perspective, the strength of links with the regular educational system may determine how effective the program can be in delivering college preparatory curricula, monitoring student progress, and providing sustained services to students throughout their pre-college years. In addition, the level of articulation between programs and schools may have ramifications for the extent to which broader school reform or renewal occurs.

The strength of linkages between initiatives and regular schools are arrayed across a continuum ranging from no linkage, through limited connection, to thorough integration of programs and school.

A strong link between a program and regular school may mean that activities, strategies and requirements are coordinated and coherent for students and may reduce a sense of divergent goals between the two.

Review of existing programs suggests that most fall at the two extremes. About a third of the programs studied operated without any contact with schools beyond using them as recruiting sites for participants. Examples of these were:

- Upward Bound, in which only a few of its 502 sites offer opportunities for Saturday tutoring.
- The Hispanic Mother Daughter program (Understanding the University Experience), which recruits students in schools but offers all services apart from them.

Only a handful of programs pursued limited links with schools beyond recruitment, including:

- Pathway to Opportunity in Yuma, Arizona, which offers participants a course on critical thinking at the

high school, taught by university faculty, during the school year.

- Dade County Black Student Opportunity Program, has a school-based coordinator who works with the students' teachers in each participating high school, to help students in course selection and SAT/ACT preparation.

- Career Beginnings, which provides seniors with in-school workshops on college admissions testing, applications and financial aid applications.

The majority of initiatives studied have close links with students' regular education. The most obvious examples are initiatives such as the Middle College programs, which serve as alternative, magnet schools within New York City and other districts replicating the model.

Other initiatives, while not separate alternative schools, represent school-within-a-school models that provide participants with a strong in-school program distinct from the regular academic program within the host school. In general, participants in these programs are block-rostered for core college preparatory classes and often receive additional tutoring and counseling support. Examples include:

- Most of Macy Foundation-sponsored initiatives;
- Bridge program in Indianapolis; and
- Johns Hopkins University/Dunbar High School partnership.

Finally, several programs have developed a close relationship with participants' schools in an effort to supplement and extend regular school services:

- Baltimore ACE provides daily enrichment courses taught by master teachers and teacher assistants recruited from a Tutor Corps; it emphasizes strong links between its school year component and its summer and weekend experiences.

- Gateway to Higher Education (New York City) offers tutoring for students during the school year provided by volunteers from CUNY Medical School. In addition, Gateway sponsors joint curriculum development for 11th and 12th grade classes between teachers and faculty from participating schools and colleges.

- Syracuse Challenge program offers in-school group and individual tutoring during the school year, on-campus Saturday and summer programs and a mentoring program involving university faculty and students (Syracuse Challenge, no date).

- The University of Missouri at St. Louis' Access to Success program offers in-school tutoring to small groups (5-7 participants) of students twice weekly in the program's Access Resource Centers (University of Missouri-St. Louis, 1990).

As suggested above, intimate links between programs and regular schools appear to be most consonant with increasing minority student access to college since they help ensure sustained delivery of services. However, there are clear organizational challenges for instituting such close connections.

First, programs with strong linkages to schools often have established essentially separate educational programs--alternative schools or school-within-a-school--to serve participants during the academic year. While such strategies probably provide students with many of the benefits of an integrated link between a program and regular education for participants, they are a relatively drastic approach and may strain attempts at replication.

Second, close relationships may require university staff to become more involved with day-to-day operational issues of schools. University staff may be reluctant to take on this added role and schools themselves may be resistant to "outsiders" being involved. Programs that are intimately connected to schools press the boundaries of the missions of both schools and colleges. Consequently, they may be vehicles for raising difficult questions about the roles and responsibilities of both institutions.

Third, close program/school ties are difficult, if not impossible, to develop in instances where programs seek to serve students drawn from multiple schools or districts.

Finally, initiatives based on close associations between schools and program delivery face relatively high levels of student mobility. Substantial mobility may mean that the full range of program activities cannot be delivered to a specified set of students. Such programs must develop alternative strategies for continuing to meet the needs of students who transfer to other schools.

SECTION III. CONTENT AND ELEMENTS COMMON ACROSS PROGRAMS

The previous section reviewed critical programmatic design options facing planners of student-focused initiatives. In addition to these design choices, however, there are a

Common Program Elements

Sharing college admissions and financial aid information
Exposing students to college experiences
Involving parents
Focusing on academic discipline or career
Mentoring
Guaranteeing admissions and tuition support
Earning college credits

variety of programmatic components that constitute much of the content of student-focused initiatives. This section describes seven programmatic elements that are found among student-focused initiatives seeking to increase minority student access to college. Examples of existing programs illustrate innovative approaches for implementing them.

Some of these elements are common to many initiatives but are delivered in different ways. Other elements raise interesting issues about the potential scope of student-focused initiatives. The particular elements described are:

- Transmission of college admissions and financial aid information;
- Exposure to college experiences;
- Parental role;
- Discipline or career focus;
- Mentoring;
- Tuition and/or admissions guarantee; and
- Opportunities to earn college credit.

TRANSMISSION OF COLLEGE ADMISSIONS AND FINANCIAL AID INFORMATION

Sharing information about the admissions process and financial aid is a common element in many programs. Some explicitly seek to demythologize college admissions and financial aid procedures. Several key topics are addressed:

- College, while not for everyone, is not just for straight-A students with near-perfect standardized test scores.
- Admission to college is granted on the basis of multiple factors including school performance, standardized testing results, extracurricular activities and other application materials. While certain standards are used in evaluating applications, no single factor assures or disqualifies an applicant.
- Minority students can, and do, succeed in a college environment if they are adequately prepared and receive appropriate academic and financial support.
- While the decision about which college to attend need not be made at the start of high school, the decision to consider attending and about the type of college a student might wish to attend should be made as early as possible. Once the decision to attend college is made, students should select courses that meet college admissions criteria and prepare them to do college-level work.
- Despite common perceptions, financial aid continues to be available. In general, decisions on awards are based on economic need and not academic performance. The type and amount of financial aid has changed over time but is likely to include a combination of grants, work/study opportunities and federal- or state-supported loans.
- The financial aid process requires that families submit financial aid applications that are used to determine how much assistance a family may need to support a student in college.

Examples of approaches to sharing admissions and financial aid information with participants include:

- Project Prime's Financial Aid and Academic Planning program, in which parents and students participate in workshops about college prep course selection and financial aid application procedures. Workshops are conducted in community centers and homes and are supplemented with information booklets and specially developed counselor kits (Arizona State University, 1990).
- Cal-SOAP, as one of its major activities, distributes information through high schools about college admissions and financial aid.

- Connecticut College's program provides special workshops on college planning and financial aid for students during its summer program and supplements them with workshops for participants' parents during program reunions.

EXPOSURE TO COLLEGE EXPERIENCES

Giving students the experience of being on a college campus is an obvious and common element among many programs. For many students, program participation will give them their first chance to visit a campus, learn about its facilities, and meet with faculty and students who work and learn in a college setting. An on-campus college experience offers an opportunity for participating students to imagine what going to college might be like. In addition, college experiences often give students a chance to meet other students with similar backgrounds and experiences.

Programs use a variety of strategies to expose students to college life. They include residential experiences; summer and weekend activities; on-campus classes during the school year; periodic special events and co-location of schools on college campuses.

Many programs offer residential experience in which students are housed in dormitories, take classes taught by faculty and/or high school teachers and use campus recreational, cultural and academic facilities. Such programs are usually intensive sessions lasting for a weekend during a school year or for several weeks during the summer. Groups are usually led by college students and staff. Such programs seek to show students that college often affords greater individual freedom coupled with more individual responsibility.

Other programs supplement summer experience with school-year clubs, workshops and classes held either within participants' schools or at the college.

Finally, a number of programs have deliberately placed the high school year component on the college campus. The most well-known examples are the Middle College programs at LaGuardia Community College and Brooklyn Community College and their replication at Shelby State College in Memphis. In these programs, students attend high school in buildings on the colleges' campuses and have access to the colleges' facilities. The college handles school administration tasks in cooperation with the local school district. The programs explicitly expect that the atmosphere of a college setting will alter students' attitudes about school and learning and will help them aspire to college.

PARENTAL ROLE

Parental involvement remains one of the more difficult challenges for many initiatives. Although parental consent for student participation is universally required, only a few programs have a structured approach for broad parental involvement. Among the more interesting programs are those designed to help parents become stronger advocates for college preparation within their children's schools:

- The ACE Program in Baltimore has a parent component called PACE that includes workshops for parents in mathematics, science, computer awareness and SAT preparation.

- Within Project Prime, "Parents as Partners" encourages parents to establish a Committee for Academic Excellence within their children's schools, to evaluate curriculum and work with teachers.

Parental involvement remains one of the most difficult challenges for many initiatives. Although parental consent for student participation is universally required, only a few programs have a structured approach for involving parents more broadly.

- The Hispanic Mother-Daughter Program explicitly involves parents as participants. Mothers (or guardians) are required to attend evening sessions and spend a weekend at a university with their daughters. Mothers are encouraged to pursue their own educational development as well.

- In CUNY's Middle College initiative, parent orientations and monthly support group meetings are held with guidance staff to help students cope with academic and social pressures (Callagy, 1989).

Most programs, however, have a much less developed role for parents. Among common activities are workshops on college admissions and financial aid applications.

Signature events including special celebrations and "graduation" ceremonies are other techniques typically used to involve parents, at least nominally, in the program.

DISCIPLINE OR CAREER FOCUS

Most initiatives do not focus on a particular academic discipline or career in their activities for youth. Among the most notable exceptions are programs that are highly selective--projects supported by the Macy Foundation; Project SOAR affiliated with Xavier University and the Johns Hopkins University/Dunbar High School Partnership in Baltimore. Each of these initiatives seeks to provide students with strong training in mathematics and sciences. Students are placed in rigorous advanced classes and receive supplemental support at the sponsoring college. A mathematics/science/health emphasis is also found in Project PRIME, which provides accelerated mathematics for younger participants through its Algebridge component and offers college preparatory studies in mathematics and science within its MESA program. The Project Discovery component of the partnership between the University of Rhode Island and School District of Providence offers summer institutes in sciences (i.e, robotics, oceanography, energy and communications technology) and mathematics and science enrichment during the school year. The program also provides teachers professional development opportunities in effective science and mathematics teaching strategies.

Several programs also require or provide an opportunity for participants to undertake internships within a specific area of study. For example, the Macy Foundation programs in New York City require students to undertake community service work as part of their participation in the program. At Middle College and International High School in New York City, students must complete one unpaid career education internship each year for three years. Each internship earns a credit towards graduation and is usually undertaken in hospitals, courts, social service agencies, museums or schools.

MENTORING

About half of the programs reviewed include a strategy for providing some type of on-going support for students through adult or near-peer (usually college student) mentoring. Such direct links can provide students with a sense of continuity and may give them personal encouragement to stay with difficult courses, help them think through college choices and handle competing pressures from peers and other activities.

Programs draw upon a range of volunteers and staff to provide mentoring support. At Middle College and International High School, for example, paraprofessionals are hired as "House Moms" for groups of 10 to 15 students. Area business people and professionals are recruited as mentors in several programs including the Miami-Dade Black Student Opportunities Program, Pathway to Opportunity in Yuma, Young Scholars in Ohio and Houston's Jesse Jones Academic Institute, where employees from Tenneco are recruited (Tenneco, Inc., 1990). Several programs including Syracuse Challenge have recruited college faculty and staff to serve as mentors to participants.

Other programs rely on near-peer mentors drawing upon college students and/or recent graduates of the program itself. For example, in the Macy Foundation's program at Hillhouse High School (New Haven) students from Yale University work with students in the program. Similarly, ACE (Baltimore) matches undergraduate education majors from local colleges and universities with students. The ACE Tutor Corps essentially "adopt" schools where ACE students are enrolled and serve as tutors, mentors and assistants to lead teachers in the program. Recent graduates of the BioPrep (Alabama) and SOAR (New Orleans) programs who are now attending college have been tapped as mentors for current participants in these programs.

TUITION AND/OR ADMISSIONS GUARANTEE

A number of initiatives offer admissions guarantees and promises of financial aid as longer-term incentives for participation. Such strategies are designed to make the college option a tangible and achievable objective for students and parents.

Guarantees of college admission generally require that students complete program participation requirements (i.e. attend several summers; participate in particular classes; meet internship requirements) and maintain a particular level of academic performance.

The partnership between the Johns Hopkins University and Dunbar High School has arranged for admissions guarantees for participants to that university or to three other Baltimore-area colleges. The large multi-tiered program in Rhode Island states that participants who complete high school are guaranteed admission to URI. Students who graduate from International High School are guaranteed admission to LaGuardia Community College.

Scholarship support is a major component of several programs:

- The Dade County Black Student Opportunity program has established a scholarship "bank account" from which participants who enroll in college may draw to finance fours years of college.

- Project PRIME in Phoenix, Arizona, specifically guarantees scholarship/grant support (exclusive of loans) and college admission to Arizona State University. Project PRIME draws upon funds set aside by an "I Have a Dream" Foundation initiative.

- Similarly, the Young Scholars program of Ohio, another "I Have a Dream" initiative, offers the guarantee of financial assistance to participants who complete high school and enter college.

- The partnership between Tenneco, University of Houston and Jefferson Davis High School is an example of a scholarship offer closely tied to specific types of participant and achievement. Beginning with the Class of 1992, the initiative will offer the George Bush Presidential Scholarship to students who graduate on time with a minimum of three years of mathematics (including Algebra II) and a GPA of at least 2.5 in mathematics, science, social studies and English, and have completed at least two of the Jesse Jones Academic Institutes. Students will receive an annual $1,000 scholarship for four-years in college.

- Syracuse Challenge guarantees admission to Syracuse University as well as financial assistance for participants who successfully complete the program and earn a combined score of 1000 on Scholastic Aptitude Tests.

OPPORTUNITIES TO EARN COLLEGE CREDIT

Several programs permit participants to earn college credits or advanced credit before enrolling in college. Such approaches are useful in three ways. First, they clearly demonstrate to students (and to colleges) that they can do college-level work. Removing the mystique of college courses can be an important step in convincing students that they are adequately prepared for college. Second, permitting students to earn credits can provide an incentive for students to continue since they have, in fact, made progress towards completing a college degree. The approach gives students a concrete personal stake in continuing college training. Third, amassing college credits can be a way for students to reduce the overall costs of college by reducing the total number of credits they might need to pay for after enrolling.

Programs use two major methods for providing participants opportunities to earn college credits. These include supporting or sponsoring Advanced Placement courses and offering college credit for completion of selected high school courses or courses students take as part of the program.

Offering support for Advanced Placement courses allows programs to draw upon an established curriculum in a particular subject discipline. When students complete the course they are permitted to take a standard examination. An examination score at or above a certain level means that a student may waive an introductory college course or actually earn credit for the course. The benefit of Advanced Placement course credits (or waivers) is that they are readily transferrable or applicable at many colleges and universities and not just those participating in the partnership effort. Sponsoring Advanced Placement courses is also an important tool within student-focused programs aimed at minority youth, because often these students attend schools where Advanced Placement courses are unavailable. Thus, initiatives that support Advanced Placement for participants can greatly expand the level and opportunities for higher-level courses in schools.

Among programs that include Advanced Placement courses as one of their components for students are:

- Project PRIME, which offers students single Advanced Placement courses;
- The Johns Hopkins University/Dunbar High School Partnership, which offers seniors Advanced Placement courses in mathematics, sciences and other subjects; and
- Pathway-Arizona, which offers participants a one-credit critical thinking course.

The second major strategy that programs use to permit students to earn college credit is by offering university-level courses. Several programs follow this route:

- Project Advance in Syracuse allows high-performing seniors to enroll, at a modest fee, in freshman-level college courses in their high schools, taught by specially trained high school teachers.

- College Now appoints high school teachers as adjunct faculty at Kingsborough Community College

to lead afternoon and Saturday courses for participating students.

- Middle College and International High School permit students in the 11th and 12th grade to co-earn high school and college credits.

- Partnership for Progress Bridge in its advanced credit component appoints high school teachers as adjuncts to lead courses in English Literature, American and European Civilization, Mathematics and Science. Students earn high school and college credits for completing these courses.

SECTION IV. CONCLUSIONS ABOUT STUDENT-FOCUSED PROGRAMS

This section has reviewed some of the strengths, opportunities and challenges of designing and implementing student-focused initiatives as a strategy for increasing minority access to college.

In undertaking its review, CAPD was struck by the limited amount of reliable information about the efficacy of student-focused initiatives. Rigorous evaluations involving standard techniques to control for differences in student characteristics and self-selection bias were almost universally absent. This "finding" is disturbing. It means that one cannot select a particular component or strategy and be assured there is evidence that it will be effective. In addition, it suggests that there has been little work towards a systematic compilation of evidence from various programs to help program planners and policymakers benefit from the experiences--positive and negative--of other initiatives.

Consequently, CAPD developed a set of principles[8] that suggest student-focused initiatives can have the greatest chance of improving rates of minority students attending college by the following:

- Focusing resources towards youth who, in the absence of the program, would have been unlikely to enter college;

- Providing a system of comprehensive services that meet varying participant needs; embedded within this system is a clear strategy for delivering appropriate services to each student;

- Offering program services in a sustained manner over a period that is sufficient to ensure that students develop the skills and experiences they need to apply, enroll and succeed in college;

- Developing appropriate links or articulation between the initiative and the regular educational system to ensure that resources of both are directed towards the goal of increased minority access to college;

- Offering opportunities on a broad enough scale to have the potential for affecting the college-going rates of minority youth in a community, and which can justify the provision of specific program components to subsets of participants in need of particular services.

Taken together these principles provide a framework for making program design choices in several key areas:

- Target population;
- Point of initial contact with youth;
- Nature of contact with youth;
- Nature of academic focus;
- Service delivery plan; and
- Relationship with regular educational system.

The section notes that with each design choice there are clearly preferable options for maximizing minority student access to college. Specifically, programs that ensure maximum benefits of student-focused initiatives would have the following characteristics:

- Use less selective program entry criteria to reduce misallocation of resources to students who would have attended college anyway; as a result increase the pool of minority students who might be recruited to attend college.

- Recognize the clear link between starting point and targeting by serving students as early as possible within resource and organizational constraints. A strong case can be made for starting at the 9th grade as well as starting earlier.

- Provide services to participants in a continuous and sustained manner offering support in school years and summers from the point of entry into the initiative through (and possibly afterwards) entry into college.

- Continue the trend among current initiatives of emphasizing college preparatory curriculum and support–supplemented with remedial assistance where needed, college admissions information and other support as well.

- Deliver services to youth through cohort approaches (in which each cohort of participants receives a standard set of services) or through systems of discrete coordinated programs (which allocate services to participants based on individual need) recognizing that either strategy has distinct limitations:

  - Cohort strategies may become exclusive over time, may have limited growth potential, and may suffer from participant attrition;

  - Developing a coordinated system of services requires substantial efforts at articulation between program components, and demands a strategy for transferring students between them based on student needs and interests, but may establish tracked approaches that limit students' opportunities.

- Develop and sustain intimate links between the program and participants' regular education by either establishing essentially separate educational programs – alternative schools or schools-within-a-school – to serve participants during the school year, or by offering supplemental activities that are highly articulated with regular school programs.

The principles and design choices described above are primarily related to the design and organization of student-focused initiatives and are only indirectly related to the content or programmatic elements of programs. There is a range of content issues that represent areas where existing initiatives have been most creative. Among the most important are:

- Transmission of college admissions and financial aid information;
- Exposure to college experiences;
- Parental involvement;
- Discipline or career focus;
- Mentoring;
- Tuition and/or admissions guarantee; and
- Opportunities to earn college credit.

Although all programs do not contain each of these elements, they form a useful indication of the depth and texture of the options that can be pursued in such initiatives.

IMPLICATIONS

Analyses presented in this section have emphasized particular design choices and programmatic content issues in planning student-focused initiatives to increase minority student access to college. Student-focused initiatives offer important opportunities to serve students directly under a community-wide strategy. Such services can be important within broader initiatives in several ways. Service to students can represent a realizable outcome for institutions–schools, corporations, and universities–who join the initiative as partners. Student-focused initiatives can begin providing services immediately while the remainder of a more systematic strategy has time to produce effects.

Despite important benefits of student-focused initiatives, such approaches cannot–in and of themselves–meet broader objectives for increased minority student access to college. In general, most programs tend not be of a scale adequate to change discernably minority student college attendance rates in a community. Also, as noted above, student-focused initiatives are not designed to evoke substantial institutional or educational change within school systems that will serve minority students when and if the program disappears. Thus, such programs may have direct immediate effects on the likelihood that some minority youth attend college while funding is available, but there is little possibility of continuity beyond the life of the program.

With few exceptions, existing student-focused initiatives are not of sufficient scale to meet the numerical and service objectives one might reasonably set for a community-wide strategy.

Student-focused initiatives often operate externally to the policy of local school districts as well as the day-to-day operations of schools. The absence of well-defined links between the objectives and strategies of student-focused initiatives and those of the community's regular educational system that serves the same students diminishes the likelihood of cumulative benefits to the minority youth they both serve.

It is important to note that a single student-focused initiative (with the design approach recommended above) need not be expanded or replicated to serve the targeted

number of youth within a community. Rather, the fact that there are a variety of strategies from which to choose would permit some flexibility in an overall strategy to meet the needs of different types of youth if the models were embedded within a rational system for providing students access to those approaches that would most appropriately meet their needs.

A multi-component, multi-program community initiative would require substantial investment to be effective. To achieve the targeted levels of services one might set for such a community initiative, existing programs would need to be expanded or supplemented substantially. Given the small size of existing initiatives, the growth needed to ensure adequate coverage would be expensive.

In addition, there will be a strong need to manage and coordinate programs in a relatively rigorous manner. A community-wide strategy comprising several student-focused initiatives might need to establish a mechanism for allocating students to program components on the basis of student needs and interests. Such a system would require active support of each initiative, including acquiescence of recruitment and selection strategies to a central coordinating entity. In addition, a follow-up system would be needed to ensure delivery of required services to each student. Coordination and management of a multi-component initiative would also be costly.

Student-focused initiatives represent an opportunity to provide minority students with needed services and support to encourage and prepare them for entry into college. Operating in a vacuum, student-focused initiatives have notable constraints on their potential for providing large numbers of students with longer-term, sustained services. Nevertheless, they represent one of the few extant technologies for dealing with minority student under-representation in higher education. It would be foolhardy to repudiate the practical role that such initiatives now play in addressing this issue.

PART TWO:
INITIATIVES ADDRESSING TEACHER RENEWAL, CURRICULUM REVISION AND SCHOOL REFORM

Major Focus

Nature of College Involvement

Nature of School Involvement

Subject-Discipline Focus

Linkages with Student-Focused Efforts

Explicit Linkage to Minority Student College Access

Governance and Funding

Incentive Structures

SECTION I: INTRODUCTION

Initiatives aimed at fostering school improvement or teacher renewal seek to change the environment in which students are taught. By doing so, they expect that a renewed and improved educational setting will produce more minority students interested in and prepared for college. These broader initiatives are critical for several reasons. First, unlike student-focused initiatives that address the product or result of the educational system, broader initiatives seek to address the process--teaching, curriculum and educational organization. Second, by addressing the process, these initiatives have the potential for transforming the conditions under which all students are educated. Third, the potential benefits of these initiatives may continue to accrue to students even after the initiatives themselves have ended, since teachers who were trained and the curriculum and educational approaches remain to serve students.

The initiatives designed to foster broad systemic reform use a variety of approaches including teacher renewal, curriculum revision and school reform. Consequently, their particular features and contours are much less defined than those of student-focused initiatives. Often, their goals, objectives and strategies are much more amorphous and their approach to improving the rates of minority student access to college is indirect.

These initiatives, however, have the potential for broad, enduring benefits to all students. Their appeal as a strategy for improving minority student college-going rates lies in their potential to increase the pool of minority students who are prepared for college, and to accomplish this through a reformed educational system.

The questions concerning the effectiveness of systemically focused initiatives mirror those directed at student-focused programs:

- Does broader school reform increase the proportion or number of minority students who attend college?
- Do the initiatives undertaken provide differential benefits to particular types of youth?
- If so, under what conditions do they work best?
- What program components are critical for ensuring increased minority student access to college?

The absence of reliable data for direct answers to these questions is even more pronounced among these broader initiatives than among student-focused approaches. Most evaluations of initiatives seeking teacher renewal or school reform are relatively rudimentary. Even the most basic indicators--number of teachers served and number of faculty involved--often are not reported in program descriptions and summaries. This makes it difficult to gauge implementation at the most rudimentary level. Consistent record-keeping on program results and products is lacking.

Few initiatives have undertaken an implementation analysis that seeks to compare the proposed model with the actual activities that were completed. In some instances, no model existed before the initiative began and the project has become simply the sum of evolving efforts. The absence of assessment across initiatives is a serious problem, since it limits policymakers' ability to separate promising approaches from those that are failing. This omission also means that critical questions related to program development--i.e. diffusion of benefits within schools and districts; longer-term benefits to youth; the ability to sustain initiatives over time--also have not been raised or addressed.

Review of program materials and discussions with program staff suggest three basic reasons for the lack of consistent assessment of these initiatives: 1) many projects are new and there has been little time to undertake an assessment of activities, 2) most projects are relatively diffuse and broad, therefore developing a reasonable assessment strategy would be difficult; and 3) the underlying premise of these initiatives is that fostering teacher renewal, curriculum revision and school reform is a means to the ultimate end of school improvement and thus, increased minority student access to college. This premise often goes unquestioned and is perhaps undeterminable in some sense.

The diversity of initiatives addressing teacher renewal, curriculum revision and school reform and the scarcity of evaluation materials about these initiatives mean that definitive answers about optimal strategies cannot be easily advanced. In contrast to student-focused initiatives with relatively well-defined boundaries and objectives, the broad parameters of system reform/teacher renewal make it difficult to posit all but the most general expectations for their implementation and achievement.

These expectations, based on research about effective school reform and the experiences of systemically focused programs, become a useful yardstick for assessing such initiatives. They suggest that broad systemic initiatives may

have the greatest effect on rates of minority student college attendance by:

- Building direct and intrinsic links with the operations, conditions and expectations of the schools and districts they are seeking to transform;
- Working towards broad diffusion beyond the staff most intimately and directly involved in the initiative;
- Emphasizing state-of-the-art educational delivery approaches as a central principle of their operations;
- Fashioning ways to integrate and sustain their approach within the environments in which they will exist; and
- Developing strategies and approaches that are sufficiently flexible to accommodate diverse settings, resources and opportunities within schools and districts.

The section that follows begins by distinguishing between the three major types of systemic approaches:

- Teacher renewal
- Curriculum revision and training
- School reform

The next section considers a range of issues: the nature of college involvement; the nature of school involvement; the subject-discipline focus; linkages with student-focused efforts; the initiatives' linkages to minority student college access; their governance and funding; and the incentive strategies they use to attract the participation of colleges, schools and their faculties. The final section considers the major strengths and challenges facing systemically focused initiatives, and notes the implications using such approaches to increase minority student access to higher education.

SECTION II. MAJOR FOCUS

College initiatives that take an institutional approach towards improving minority student college access can generally be classified into three major groups based on their particular focus:

- Professional development of teachers;
- Curricular reform complemented by professional development; and
- Broader systemic efforts, such as school restructuring.

These different areas of concentration are described separately below. Each discussion defines the approach or focus, indicates how common it is among partnerships studied, and provides additional information that may be useful to those designing such initiatives.

PROFESSIONAL DEVELOPMENT OF TEACHERS

Perhaps the most straightforward approach among the initiatives studied is that focused on teacher development and renewal. An historical relationship between colleges and schools has long existed within the context of teacher training through teacher colleges and schools of education. Placing new emphasis on professional development of teachers represents a natural extension of this relationship foreshadowed by traditional certification and re-certification strands offered to teachers by colleges and schools of education.

In practice, efforts to expand professional development of teachers within these initiatives can be roughly classified into two approaches: efforts to increase and revitalize teachers' mastery of subject-specific materials; and efforts to train teachers in new instructional methodologies. Many of the initiatives discussed below combine one or more of these approaches into their program design. In fact, examples of "pure" subject-mastery models or subject-neutral methodological approaches are few.

Training in Substantive Areas

Within professional development approaches, upgrading/updating of teacher knowledge is a well-established strategy.[9] Several initiatives have identified upgrading teachers in their curricular disciplines as an important vehicle for helping teachers continue to be

engaged in their craft and for ensuring that their students receive state-of-the-art instructional content.

Although the present study identified only a few initiatives that solely or primarily focused on training teachers in substantive areas, those identified provide some insights into typical ways in which resources of postsecondary institutions can be tapped to improve teachers' capacity to prepare their students with key subject disciplines.

Some initiatives have identified upgrading teachers in their curricular disciplines as an important vehicle for helping teachers continue to be engaged in their craft and for ensuring that their students receive state-of-the-art instructional content. . . . A fundamental dilemma facing these discipline-specific initiatives, however, is developing a strategy to extend their benefits in a systematic manner beyond teachers who participate.

One example of a substantive-focused initiative is Academic Alliances. Established under the auspices of the American Association for Higher Education, the initiative is built on the premise that discussions between secondary school teachers and college faculty will generate renewed interest in academic disciplines. Academic Alliances represents an example of a loosely connected partnership that relies heavily upon the initiative and interest of professionals working at different levels of the educational system. Individual teachers and college faculty join area discipline-specific discussion groups in which common problems and issues in the discipline are reviewed and debated. In addition, members may develop relationships for joint work outside of the groups. The approach is particularly interesting since it stresses shared professionalism of educators at both secondary and postsecondary levels and emphasizes the importance of subject discipline over instructional or status level.

Regular meetings of Alliances--begun in each case by a single school teacher and college faculty member--are opportunities for participating members to also share ideas and resource materials. In contrast to curriculum-focused initiatives described below, development of curricular units, or articulation of school and college curriculum, are not necessarily an explicit goal of individual Alliances. Rather, the content of the discipline is the focus. Beyond the discussion of discipline content, common activities pursued by Alliances include panel discussions on common areas of concern, or acting as a clearing house for conference notes and journal articles (American Association for Higher Education, no date).

Another example of a content-focused approach is the Commonwealth Partnership Humanities Institutes for Secondary School Teachers based at Franklin and Marshall College. In contrast with Academic Alliances, this Partnership provides much more direct training of teachers. It draws on resources of its 12 founding colleges and universities to provide teachers with a better understanding of collegiate programs and expectations of academic preparation that professors hold for entering students.

The approach and emphasis of the partnership is on teacher renewal by increasing professional interest in their selected disciplines. Teachers from more than 180 secondary schools throughout Pennsylvania jointly teach summer institutes with college faculty. The institutes, lasting about three weeks, are held on campuses of participating colleges. Institutes have been offered in literature, history and foreign languages and new sessions focused on biology were planned for summer 1991.

Teachers have the opportunity to participate in follow-up programs during the year as well. Post-institute programs are conducted throughout the academic year reaching, according to program documents, approximately 1,500 teachers (College Board, no date). School-year programs provide college access information to parents as well. As an indication of the continuity of contacts, the program reports that participating teachers initiated approximately 600 contacts with college faculty in the year following the 1985 summer institutes.

Among many initiatives pursued by the Berkeley Professional Development Program (PDP) is an effort to revitalize college-prep math programs in secondary schools by having teachers re-learn calculus. While the objective is to increase the number of minority students in competitive college-prep math programs, the by-products of the workshops are teachers who feel enriched and less isolated, become familiar with the requirements of a college math program, and are able to raise expectations of their students. Following workshops led by PDP staff, newly trained master teachers return to their high schools and provide in-service instruction to other teachers (Culler, 1986).

PDP, Academic Alliances and the Commonwealth Partnership provide useful examples of initiatives seeking to appeal to the intellectual interests of teachers as a means to invigorate their teaching. Their approach acknowledges that many secondary teachers closely identify themselves with their chosen discipline. These initiatives promote teacher renewal by strengthening teachers' command of their subjects.

A problem facing these discipline-specific initiatives is the need for a strategy to extend their benefits in a systematic manner beyond teachers who participate. Many initiatives reviewed lack the capacity to move much beyond those teachers actually involved. Nevertheless, both Berkeley's PDP and the Franklin & Marshall program have sought a broader effect through master teacher-directed diffusion efforts and through planned programs during the school year. Such strategies are often operationally difficult. Further, the concept of a master teacher requires active support by local school districts to permit in-service training and a strong commitment by the district and by teachers to incorporate materials and approaches within classes.

Training in Instructional Methodologies

A more common alternative to discipline-specific teacher training as a mode for professional development is training in alternative instructional methodologies.[10] The premise behind these initiatives is that teachers can more effectively foster student learning if they are equipped with approaches to instruction that better meet the learning styles or preparation of students.

These initiatives contend that instructional practice has lagged behind discipline content, available teaching technologies and the particular learning needs of new generations of students. Just as curricula have continually evolved and changed to incorporate new ideas and knowledge, so the methods used to instruct students have changed. However, the initiatives immediately acknowledge that a willingness to "teach differently" is not enough to ensure that teachers effectively alter their teaching approaches. Initiatives also recognize that exhortations for instructional change must be accompanied by convincing evidence that the switch is justified. Thus, a structured process of instructional re-tooling and training must occur in an environment in which colleges and universities can be appropriate leaders.

Particular strategies and techniques addressed in these initiatives--cooperative learning, computer-assisted instruction, cross-curriculum writing, learning styles, alternative assessment, interdisciplinary teaching, etc.--cover the whole range of alternative instructional technologies. No single instructional approach seems to predominate. Several initiatives, in fact, blend several approaches. Across all, however, is an emphasis on alternative strategies as vehicles for improving minority college access.

The premise behind initiatives that provide training in alternative instructional methods is that teachers can more effectively foster student learning if they are equipped with approaches to instruction that better meet the learning styles or preparation of students.

Several examples of initiatives seeking to infuse alternative teaching methods bear discussion. The University of Southern California/California Writing Project addressed professional development of teachers by hands-on demonstration of techniques proven effective in improving the teaching of writing (Wilbur, Lambert and Young, 1987). Like similar initiatives, such as the Florida Institute of Education, the original participants then become master teachers, returning to their schools to teach these new methodologies to both their high school students and to other teachers throughout the system.

Master teachers are also the vehicle by which California State University-Northridge reaches out to expand the number of teachers trained in team teaching and other teaching methodologies designed to improve the instruction of "Language Across the Curriculum: Learning from Text" (California State Postsecondary Education Commission, 1988). The program's goal is to improve students' attitudes toward reading and provide them with a realistic assessment of college options and prerequisites. Its strategy is training teachers in methods and approaches that foster reading.

Two initiatives that take a somewhat different tack in fostering change in teacher instructional approach are the Institute for Research on Teaching (IRT) at Michigan State University and School-University Partnership for Educational Renewal (SUPER) at the University of California-Berkeley. Both emphasize the use of research findings on teaching and learning to advance professional

development of both school teachers and college faculty. IRT conducts joint research projects that focus on the problems of teaching practice, and teachers' responses to them. Breaking the isolation of traditional teacher roles produces teachers who are more analytic and receptive to new ideas; the result is a strengthened commitment to the improvement of teaching, and new goals and aspirations for both the profession and its students (Porter, 1987).

At Berkeley, the goal is to develop "practice-sensitive researchers at the university and research-sensitive practitioners at the school site." In addition, SUPER develops and disseminates models for undertaking institutional change. Berkeley's program includes five main types of activities:

- SUPER seminars for school change;
- SUPERNEWS, a newsletter distributed to 2,000 teachers, administrators and graduate students;
- SUPER Saturdays, during which workshops are held about classroom management;
- Cluster meetings involving teachers from elementary, middle, junior and senior high schools to discuss central issues of school and curricular reform; and
- University-Schools Collaborative Research Project, which undertakes research efforts on educational issues of concern and interest to participants in the initiative and disseminates findings to them (Gifford, 1986).

These examples demonstrate a broad range of approaches towards changing the practice of teaching. In approaches that emphasize alternative methodology-training, the hope is that alternate approaches will increase the number of minority students who succeed at the secondary level and become eligible for college. The initiatives that encourage teacher reflection predict that greater teacher awareness of craft, instruction and student will reduce barriers to student success.

CURRICULUM AND PROFESSIONAL DEVELOPMENT

Although a portion of partnerships have focused on professional development of teachers--addressing both increased mastery of subject disciplines and training in alternative teaching methodologies--college-school partnerships more commonly seek to blend teacher professional development with fundamental curriculum reform initiatives.[11]

Although a portion of partnerships have focused on professional development of teachers--addressing both increased mastery of subject disciplines and training in alternative teaching methodologies--college-school partnerships more commonly seek to blend teacher professional development with fundamental curriculum reform initiatives.

Among the more notable examples of approaches that seek to foster teacher development and curriculum renewal is the Educational EQuality Project Model Programs created by the College Board. It is a loose network of 18 distinct partnerships whose common purpose is to expand and diversify the pool of students academically prepared to enter college. There is much variation among the 18 partnerships in terms of types of participating institutions, location and populations served. However, most offer a combination of teacher professional development, direct services to students, curriculum development and research activities. Three Project EQ initiatives that characterize the range of the broader program are as follows:

- One of the best known and most highly lauded of the EQ Model Programs, the Student/Teacher Educational Partnership (STEP), was designed to enhance the academic preparation of all students, but especially those under-represented in postsecondary education. Administratively housed at the University of California Irvine, STEP seeks, through forums and workshops, to develop/revise secondary school curricula and in-service training as vehicles for changing the pervasive pattern of low expectations and poor academic outcomes for minorities (Adelman, 1989).
- An example of an EQ Model that is highly focused on curriculum delivery is the Oklahoma Consortium for Excellence in Education. Through a teleconferencing program designed by Oklahoma State University, faculty offer courses in calculus, physics, trigonometry, and foreign languages that would otherwise not be available at the 250 participating rural public secondary schools

throughout Oklahoma and neighboring states. The special programming improves students' academic opportunities and experiences, while at the same time supporting public school efforts to prepare students to meet the university's expectations of entering students. In the example of the Oklahoma Excellence in Education approach, the collaboration involved the direct delivery of educational services from the college partner to students in secondary schools. Providing these services to students, whose districts were unable to provide advanced courses, broadened the pool of students qualified and prepared for entrance into the university (Sosniak, 1989).

- An initiative well known for its dual focus of professional development and production of curricula units is the Yale-New Haven Teachers Institute. Through seminars conducted by Yale faculty, individual teachers in the humanities drawn from middle and high schools in New Haven are able to develop curricular units and petition for certification of their course of study. A total of 450 curricula units have been produced since the institute, also an EQ Model Program, began in 1978. Student performance is believed to be enhanced as a result of increased teacher preparation, heightened teacher expectations of their students, and improved teacher morale. The institute has been credited with encouraging teachers to remain in teaching in New Haven by "keeping teaching alive" (College Board, 1987).

Another multi-faceted approach that emphasizes curriculum development is a collaboration between Northern Arizona University and Tuba City High School (Bio-Prep), which brought together faculty and teachers to plan a "hands-on," four-year science curriculum. The new curriculum was designed to be merged into a mathematics and language arts program for Native American students with demonstrated aptitude for science studies (Wilbur, Lambert and Young, 1987).

The Philadelphia Alliance for Teaching Humanities in the Schools (PATHS) and the Philadelphia Renaissance in Science & Math (PRISM) also have a combined focus of strengthening the effectiveness of instruction through staff and curriculum development projects. Through a series of colloquia and symposia, teachers work with resource people from area universities, scientific or cultural institutions, and corporations on projects for classroom application. More than 4,000 teachers and administrators participate in over 30 major staff renewal or curriculum development projects in humanities and sciences each year.

For example, PRISM offers the Woodrow Wilson Institutes for High School Teachers, providing graduate-level instruction in mathematics and science. The institutes are led by master teachers drawn from across the nation. The World History Revision Project is a PATHS program based on a national model for humanities curriculum revision involving teachers drawn from throughout Philadelphia public schools (Philadelphia Partnership for Education, 1989).

One of the best known nationwide efforts seeking to improve teaching and schools through curricular-focused activities is the Professional Development Schools initiative sponsored by the Holmes Group. This initiative seeks to "improve the quality of schooling through research and the preparation of career professional teachers" (Holmes Group, no date). The movement is gaining momentum nationally as it seeks to reform education by reconceptualizing and invigorating the curricula for prospective teachers, and extending the academic and clinical preparation of teachers already in the field. The Holmes Group seeks to reform teacher education by establishing Professional Development Schools.

An example of a multi-dimensional Professional Development School approach is managed by the Albany Professional Development Center at SUNY-Albany. It combines alternative methodology training, direct student service, and curriculum reform. The approach includes one-on-one advising and instruction of high school teachers by college faculty and doctoral students in both new curriculum and teaching strategies. For example, the center's director--originally a faculty member in the university's School of Education but now with her office at a junior high school--instructs teachers in word processing techniques in joint classes with their low achieving 9th grade students.[12] Additional center activities include after-school writing and mathematics workshops and half-day workshops for all secondary English and reading teachers. The center staff also help teachers develop new classroom strategies such as cooperative learning, while university students work as aides in the classroom and tutor/mentor students after school (Albany Professional Development Center, no date).

Partnerships that address both curricular reform and instructional methodology provide interesting challenges to both colleges and secondary school participants. By their nature, they are broad in their coverage and include a wide

range of disciplines. In addition, they tend not to be wedded to a particular brand of alternative instructional methodology and instead offer training in the methods that are particularly appropriate for the discipline area.

These multi-faceted initiatives face the same diffusion problems experienced by professional development and curricular reform efforts. Even the largest can accommodate just a fraction of teachers in a school, district or discipline area. Master teachers and reports to colleagues by participating teachers are the primary tools that these initiatives can use to expand their impact beyond teachers attending the seminars and training. In addition, multi-faceted initiatives are dependent on support and follow-through within teachers' home districts if they are to have a broad effect.

BROADER SYSTEMIC EFFORTS

A limited number of interventions go beyond targeting professional development and curriculum development/redesign as they attempt to further change the environment in which students learn and prepare for postsecondary education. In such broader efforts, a variety of strategies and components are used to advance school reform.

The Center for the Collaborative Advancement of the Teaching Profession (CCATP) at the University of Louisville is an initiative that combines both curriculum and two-way professional development with school restructuring. The breadth of this initiative is quite exceptional and involves a number of components:

- Faculty associated with the center work with the Jefferson County Public Schools to develop new curricula designed to motivate children.

- At monthly meetings, teachers and faculty share experiences related to instructional materials and teaching strategies, such as cooperative learning and other approaches.

- The Louisville initiative's Algebra Project brings together teachers, curriculum specialists, and university faculty to design, implement, and evaluate instructional units. The underlying assumption for the effort is the commonly accepted belief that proficiency in algebra opens the gate to higher educational achievement.

- The center has helped establish 24 professional development school sites that assign university faculty to schools to assist them with their reform and restructuring agenda.

- Finally, the center is the umbrella for a number of student-focused components:

  - An early Reading Recovery Project targets young students;
  - A High Five Program (High Content, Expectations, Support, Involvement, and Energy) attempts to increase student motivation and expectations; and
  - A Teacher Preparation Program and a Minority Teacher Recruitment Project are offered for older students (Center for the Collaborative Advancement of the Teaching Profession, 1990).

The Boston University-Chelsea Educational Partnership is explicitly dedicated to school and district restructuring. Within the "Chelsea Project," Boston University has entered into an agreement to manage the schools of Chelsea, Massachusetts under the mandate to "provide the Chelsea Schools, among the most troubled in Massachusetts, with new leadership that will, over the ten years of the contract, make them among the best in the nation" (Greer, 1990). More specifically, the agreement's goals are to give teachers proper respect and monetary compensation, as well as opportunities for further professional development, while at the same time "nurturing the health, education and development of each child and as appropriate, his or her family through innovative teaching methods and social service projects" (Boston University/Chelsea Educational Partnership, 1990). The Chelsea approach includes both process and specific components:

- Boston University's Chelsea management team hired a new superintendent who promptly reorganized the high school into five groupings, i.e., 8th and 9th grade clusters with 10th to 12th graders separated into three different "schools".

- Other projects launched by the superintendent include an Early Learning Center, offering a two-way language program, a special needs program to prepare young children for school and a Voyager Academy offering an accelerated program for older students.

- The university has recently announced that it plans to establish "A Different September Foundation" to support educational reform both locally, in the City of Chelsea, and nationally. The foundation will seek grants to support and expand projects already established through the partnership with Chelsea's schools, as well as support workshops, conferences and publications describing successful programs (Boston University, 1990).

Nation of Tomorrow is a relatively new initiative, one of numerous collaborative efforts supported by the Center for Urban Educational Research and Development (CUERD) at the University of Illinois, Chicago. Targeting the elementary and high schools, school enhancement activities include staff, curriculum and instructional improvement. University faculty work with teachers and administrators at school sites. In addition, teaching staff attend seminars at the university. Among the areas of focus are peer coaching and school-based management led by the Chicago Area School Effectiveness Council.[13] In fall 1990, the initiative announced it would facilitate development and implementation of curricular and instructional improvements in the following areas: literacy, instructional use of computers, early childhood education, special learner needs and student self-esteem and motivation. These activities remain at the formative stage (University of Illinois at Chicago, no date).

A final example of an initiative seeking to foster broad systemic reform of pre-collegiate education is the Florida Institute of Education (FIE), administered through the University of Northern Florida. It plans and develops collaborative programs and activities among universities, community colleges, and public schools within Florida's five scholastic regions. In addition to developing curricula and Turnkey Teacher Training (an example of a master teacher concept) in postsecondary preparation and awareness, FIE supports efforts towards restructuring through school-based management in several schools. In addition, FIE has launched a training program for school personnel to help them prepare and counsel African American students for college. This latter effort, along with the training of both university and high school personnel in effective recruitment strategies and flexible university admission program procedures, is an example of student-focused components that, while not central, are often included in the overall design of an intervention (Florida Institute of Education).

Initiatives that have adopted school reform as their central mission are quite varied. They include a variety of approaches and strategies selected to affect each component of the educational system--teachers, curriculum, students needs, administration, etc.

The Boston University and University of Louisville initiatives represent very highly developed and comprehensive approaches to school reform that involve direct services by the institutions' staff to teachers, students and administrators. The Florida Institute of Education strategy is more diffuse as it seeks to foster reform throughout the state by marshalling the resources and interests of consortia of institutions to aid local schools.

Evidence on the effectiveness of the four strategies remains thin. Boston University's Chelsea experiment has come under substantial scrutiny and some criticism. Its approach is considerably more radical in terms of legal responsibility and risk. The other initiatives are much less public and in some ways, less fundamental to the day-to-day operations of schools.

SECTION III. KEY VARIATIONS

The previous discussion described different approaches for increasing minority access to college through teacher renewal and school reform. This section considers how these initiatives vary in scope of operation, components and governance. Seven areas are covered:

- Nature of college involvement;
- Nature of school involvement;
- Subject-discipline focus;
- Linkages with student-focused efforts;
- Explicit linkage to minority student college access;
- Governance and funding; and
- Incentive structures.

The discussion examines the major variations observed among partnerships as well as operational issues, benefits and challenges associated with these variations.

NATURE OF COLLEGE INVOLVEMENT

The commitment and depth of college involvement in partnerships with secondary schools varies substantially. At most, the commitment can be a concerted effort to coordinate resources and activities from all areas of the college or university--different schools, divisions, departments; faculty, administrators and students; and in-kind and monetary contributions. The institution also can publicly tie its reputation and public image to the partnership.

In its most developed form, a college's commitment to partnerships can be demonstrated by a concerted effort to coordinate resources and activities from all areas of the college or university. In less expansive cases, partnerships can be highly peripheral to the activities of the institution. Individual faculty are left to their own devices to instigate and sustain the initiatives.

In less expansive cases, partnerships can be highly peripheral to the activities of the institution. Individual faculty may be left alone to launch and sustain initiatives. But the partnerships studied were clearly arrayed across the middle spectrum of these two extremes with a bias towards a peripheral role for university or college affairs.

Since the business of higher education is higher education, this should come as no surprise. To some, teacher renewal, curricular revision and secondary school reform are important only to the extent to which their neglect reduces the student pool, substantially jeopardizes student performance within college, limits access to federal, state or private funding, or proves detrimental to the institution's public image, or to its role as a reasonably viable vehicle for educational and class mobility. However, it is increasingly apparent to many higher education institutions that they have a vested interest in pre-collegiate success of all students.

Colleges and universities of all types have become partners in these initiatives. They include a substantial number of private institutions such as Yale, Duke, University of Southern California, and Boston University; a broad spectrum of public institutions including dominant state universities, i.e. Maryland, North Carolina, California-Berkeley, Michigan State; and less well-known or less academically selective schools such as Northern Arizona State, University of Northern Florida and Cuyahoga Community College. Smaller private institutions also have established partnerships, especially in multiple initiatives. College partners appear to represent the broad spectrum of postsecondary institutions. Institutions with access to substantially more resources, i.e. those with large schools of education or institutions that are part of a state university system, prevail in college/school partnerships. Initiatives in which they are involved are commensurately broader and larger.

Although colleges and universities of all types and sizes are found as partners in these initiatives, it is clear that institutions with access to substantially more resources, i.e. those with large schools of education or institutions that are part of a state university system, are most commonly found in college/school partnerships. Initiatives in which they are involved are commensurately broader and larger.

There are a variety of ways in which colleges structure their involvement with these initiatives. Individual faculty may design and execute the collaboration; a college may direct the resources of its school of education to a program, marshall the efforts of several departments or the entire institution; or a college may join with other colleges and universities to reach a common objective. The two most common strategies among the initiatives studied are programs that link an institution's school of education with a school, district or set of teachers and/or the drawing together of a group of colleges and universities in partnership with secondary schools.

Partnerships exclusively housed within schools of education contain across all types of program focus–teacher development, curricular development, etc. The apparent natural fit between schools of education and initiatives aimed at teacher renewal, curricular renewal or school reform builds on the strengths and interests of these departments. Examples of school of education-based initiatives include Michigan State University's Institute for Research on Teaching and National Center for Research on Teacher Learning, Nation of Tomorrow at the University of Illinois at Chicago, and Southwest Texas State University's ASPIRA.

Perhaps more surprising is the substantial number of examples of programs that draw upon the resources of a consortium of institutions. Often initiated with foundation or government funding, multi-college initiatives usually draw together several neighboring colleges and universities. Examples of initiatives involving multiple institutions include:

- Project STEP, administered through the University of California-Irvine. Four institutions of higher education supply the different parts of the intervention.[14]

- Commonwealth Partnership housed at Franklin & Marshall College draws on the commitment and resources of 12 colleges and universities[15] within Pennsylvania. Faculty from the institutions co-teach summer institutes with high school teachers from approximately 180 schools throughout Pennsylvania. Year-long follow-up activities aim to improve academic and staff development programs (College Board, 1987).

Less common are programs that draw upon individual faculty members and initiatives that are based in departments or schools (other than the school of education) within a single university. Initiatives that involve individual faculty tend to concentrate on the professional development of teachers of specific disciplines. Boston's Foreign Language Institute pairs language teachers from schools throughout the region with university teachers from different departments and also involves efforts to improve curriculum articulation between secondary and collegiate levels.

University-wide programs such as the Albany Professional Center and the Oklahoma Consortium for Excellence in Education are more likely to cover a variety of disciplines, often combining math and science with English and the humanities. The use of interdisciplinary teaching techniques is also a common thread to these university-wide programs. The Bio-Prep Program that partners Northern Arizona University with Tuba City High School is an example of a program that began with a hands-on science focus but expanded to incorporate an English component to address the severe deficiencies in written and oral English among the school's Native American students.

NATURE OF SCHOOL INVOLVEMENT

The role that schools and districts play within these initiatives can vary substantially. How this role is conceptualized can affect the ability of the initiative to improve pre-collegiate training. In particular, uncoordinated or low-level district and school support for participation in the initiative can profoundly limit the dissemination throughout the school or district. School and district-level involvement in these initiatives does not guarantee broader dissemination. Five broad classes of school involvement were identified. They are collections of individual teachers; individual schools; collections of schools; individual districts; and multiple districts.

The type of school involvement will essentially determine the degree to which the direct benefits of the initiative permeate a school or system beyond the teachers directly involved.

Note that in all the partnerships reviewed, the primary focus and delivery of the "intervention" is at the level of teacher. As would be expected, partnerships promote teacher renewal and school reform by working directly with teachers. However, there are some important distinctions in key elements of program delivery across the five broad classes of school involvement. Also, the type of school involvement will essentially determine the degree to which the direct benefits of the initiative permeate a school or system beyond the teachers directly involved.

The two least common classes of school involvement among these partnerships were those that link individual teachers or a single school within a partnership. Only a handful of each type were among the programs studied. Much more common were initiatives of the three other types: those pairing a single district; those combining multiple schools; and those that drew together multiple school districts. Each of these types had an equal share of the programs studied.

Collections of Teacher Programs

Initiatives that bring together a collection of teachers are relatively rare. In fact, there is very little sense of institutional partnership in such initiatives. Instead, these initiatives capitalize on the individual professional motivation of a limited set of teachers. Academic Alliances and the Commonwealth Partnership provide opportunities for teachers to improve their mastery or facility with specific disciplines. Michigan State's Institute for Research on Teaching and its National Center for Research on Teacher Learning encourage participating teachers to reflect on the practice of teaching. It appears, then, that initiatives that deliver support to collections of individual teachers offer models that are attractive to teachers consciously seeking professional development.

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Single School Initiatives

Although partnerships that focus attention on individual schools were rare among the initiatives studied, a common thread that links these initiatives follows a classic school/college adoption model in which the entire school or particular departments within a school are identified for support by college staff. Curriculum renewal, especially related to college preparation courses, is a goal of these partnerships:

- University High School is a selective, college-prep magnet program established within Suitland High School. The academic magnet was created initially by the University of Maryland's School of Education and modelled after Mortimer Adler's Paideia Proposal. The partnership has subsequently been expanded to include the College of Arts and Sciences (Culler, 1986).

- The Learning Bridges program represents a partnership between Balboa High School and San Francisco State University in which "honors" courses in several disciplines have involved both university and school staff (California State University, 1984).

- Arizona's Bio-Prep follows a similar approach in seeking to develop a more rigorous academic preparation program for Native American students enrolled in Tuba City High School by matching faculty from Northern Arizona University with high school teachers (Wilbur et al, 1987).

- Academic Scholars Achievement Program focuses on the improvement of higher-level mathematics instruction and is a partnership between Albany High School and Berkeley's Professional Development Program (Culler, 1986).

These examples of one-to-one institutional partnership models share a common objective of improving college prep courses for more advanced or talented students. Such initiatives tend to emphasize curricular content over instructional methodology.

Initiatives Working with Several Schools

Partnerships that extend to multiple schools are more prevalent than the first two classes of initiatives. Such partnerships generally limit themselves to secondary or middle schools and usually do not encompass more than four separate schools. In some ways, they are very similar to the single school examples, except they extend their target area to several schools. The initiatives tend to address what is best described as teaching technologies, which--while clearly linked to disciplines--do not often go as far as curriculum revision or renewal. Examples of this class of programs are the Northern California Mathematics Project (Wilbur, 1987), San Diego State University's science initiative and the University of California's writing project (California State University, 1984), each of which brings together teachers from several schools for training in more effective methods of applying their curricula.

Single District Initiatives

Curriculum revision and development is common among initiatives limited to a single school district. These include PATHS/PRISM, Yale-New Haven Teachers Institute and Baltimore County School/College Transition Model. They involve a centralized approach to curricular strategy and application throughout a district. Such partnerships meet the needs of an entire district and often have the opportunity to address several disciplines.

Multiple District Initiatives

Partnerships involving multiple school districts are also prevalent among initiatives studied.[16] Ironically, they have more in common with partnerships involving several schools than they do with single district initiatives. Multiple district partnerships tend to focus on the technologies and methodologies of teaching and address curricular issues only at the most broad levels. These partnerships rarely attempt to undertake curricular reform or revision, but may begin to specify the broad parameters of a curriculum and the key topics that should be addressed within it. Substantial emphasis is placed on solving instructional problems among the participating teachers of multiple districts.

SUBJECT - DISCIPLINE FOCUS

Among the partnerships studied, only a handful had no particular discipline focus. Equally important, however, was the discovery that a single discipline did not predominate within partnerships either. Not quite half had an English and/or humanities emphasis but these included a substantial number of programs that additionally focused on science and mathematics. Only a modest number of programs stressed mathematics or science exclusively (or primarily). In fact, this finding is relatively surprising given the persistent concerns about secondary preparation of students in these areas and the frequent assertion that algebra is a major "gatekeeper" to higher education.

Discipline focus varied across all types of programs--professional development, curriculum development and school renewal--but does not appear to vary systematically by the level of college or school involvement or other dimensions considered. Similarly, there is only limited variation within approaches to discipline emphasis. For example, Academic Alliances provide participants the opportunity to discuss broad academic issues related to their disciplines (American Association for Higher Education, no date). In contrast, University of California-Berkeley's ASAP Program emphasizes calculus instruction as a means for revitalizing math teacher interest and instruction (Culler, 1986).

It appears that the particular discipline focus of partnerships is not critical per se but is necessary to ground other activities of the interventions.

INCLUSION OF STUDENT COMPONENTS

The partnerships studied for this document were selected because of their focus on teacher renewal and school reform. But more than half also had a distinct student component. Student components were found in programs of all types. However, there was substantial variation in the approach to serving students within the programs studied.

Four approaches were observed. Several programs had ancillary student program components that provided limited student testing or assessment as a relatively minor part of the overall initiative. Several initiatives, especially those seeking to develop reflective teaching strategies or train teachers in new curricula or teaching methodologies, involved students in laboratory-like environments. Typical student components within these initiatives included implementation with a group of students in a "real-world" setting. Some initiatives provide "on-the-job" support to teachers working in their regular schools. Finally, a handful of partnerships offered direct support to students including counseling, special instruction, summer programs and other activities as an integral part of an overall initiative aimed at school reform.

In partnerships with student components that are more substantial than mere testing, there appear to be strong efforts to coordinate these student activities within the overall initiative framework. Student components in these partnerships rarely appeared to be incidental "add-ons" with only tangential relationship to the project. Further, unlike many student-focused initiatives reviewed in the first part of this report, student components within teacher renewal/school reform are more likely to be sustained, coherent and comprehensive.

STATED OBJECTIVES OF PARTNERSHIPS

The vast majority of the initiatives described above are generally regarded as conscious efforts to increase minority student access to college. However, unlike many student-focused initiatives described earlier, only a small number of partnerships seeking teacher renewal or school reform specifically label their activities as having a minority student focus. This finding was expected since curriculum, teaching methods and school renewal are, for the most part, educational "universals" that transcend efforts to label them as minority-focused. However, these initiatives are important because they have seized teacher and curriculum renewal and school reform as appropriate vehicles for improving minority student access to college. Participants and leaders in these initiatives see educational reform and minority student access as intricately and indivisibly linked. The premise of these initiatives is the transformation of the teaching and learning environments in which minority students are educated to ensure that these environments unquestionably prepare and encourage minority students to attend college.

Of the few partnerships that do label their interventions as minority-only focused, most involve only one high school; are supported by a combination of foundation and government grants; and have governance structures located in the college/university. They too are part of a national effort to improve the educational opportunities of minority students.

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GOVERNANCE STRUCTURE

Two approaches to partnership governance dominate the initiatives studied--programs administered by college partners and initiatives housed within an independent intermediary organization established specifically for the program. Noticeably absent among governance approaches are public schools or districts. However, many partnerships have established committees that include representatives from both secondary and postsecondary institutions. In addition, the initiative for launching these partnerships is usually found within colleges and universities or in response to invitations by government or foundation sources. Only one initiative--Project ZOOM, (Zeroing in on Opportunities for Minorities)--was identified that was established by a superintendent of schools.[17]

Two approaches to partnership governance dominate the initiatives studied--programs administered by college partners and initiatives housed within an independent intermediary organization established specifically for the program. Noticeably absent among governance approaches are public schools or districts.

Funding also plays a role in the type of partnership governance that is established. Not surprisingly, substantial funding support from a college or university is likely to coincide with that intervention being managed by college personnel. Local intermediaries are more likely to emerge when multiple sources of funding are available, particularly when government funds are used.

PARTICIPATION IN NATIONAL AND REGIONAL EFFORTS

Many of the individual school/teacher-focused initiatives reviewed were part of a larger national or regional effort aimed at improving the educational opportunities and college preparedness of high school students. For example, there were a total of 18 EQ Models Programs for School-College Collaboration supported by the College Board and located in different communities across the country. Their primary focus was on combined professional and curriculum development.

Regional or state efforts were especially common in California, under the auspices of the California Academic Partnership Program (CAPP). Funded by the State Legislature, CAPP brings together the University of California, the California State University, the California Community Colleges and the State Department of Education ". . .to create improved learning, academic preparation, and access opportunities for students in middle schools and high schools, so that more students, especially those underrepresented on postsecondary campuses, can successfully complete baccalaureate degree programs" (California State Postsecondary Education Commission, 1988).[18]

PARTNERSHIP FUNDING

Most school/teacher-focused initiatives receive funding from a variety of sources though the greatest reported source is colleges and universities. Government and foundation funds also support a large number of initiatives. Contributions from the private sector are virtually absent.

Funding for many of the initiatives described above can appropriately be characterized as "soft." There are clear risks associated with such types of support--the project may be canceled or severely curtailed at the close of the grant period. However, it is important to recognize that program "soft funding" is not tantamount to program deterioration. The case of initiatives supported through the EQ Model Programs managed by the College Board is instructive. Sustained by grants between 1980 and 1990, the 10-year initiative has left a legacy of many programs in its sites. Of the original 18 programs, at least 15 remain in full operation.

INCENTIVES

Among the most important issues facing these initiatives is determining how to attract and sustain the involvement of

colleges, districts, college staff and teachers in the programs. This section describes some of the incentives (both formal and informal) that have been used to spur their participation.

No single incentive was more effective than any other. However, the broad range of incentives found within each level indicates that motivation can be generated in a number of ways. There is evidence that the issue of incentives is important within existing initiatives. Anticipated benefits to institutions and staff are as prominent in descriptive materials as are anticipated benefits for minority students. That such incentives are explicitly addressed in these initiatives indicates that the goals of increasing college access for minorities will not, by itself, ensure participation by institutions or individuals.

Colleges and Universities

The issue of why colleges and universities become involved in these initiatives is important for understanding program characteristics. The goal of postsecondary institutions is higher education and, given the nation's segmented system of education, it would be understandable--barring precipitous declines in enrollment--if colleges and universities saw these efforts as low in priority.[19] This would particularly affect efforts that impact the delivery system--i.e. teacher renewal, curriculum revision or school reform--in which the direct benefits to colleges (e.g. increased enrollments, better-prepared applicants) are neither immediate nor guaranteed. Perhaps this explains why the proportion of all postsecondary institutions actually involved in these partnerships is relatively small. What then are the particular inducements or incentives that persuade colleges to become active in these efforts?

Review with program staff suggests two major reasons for participation--mission and institutional self-interest. Partnerships of the type described in this section have not become the norm across all institutions. Frankly, the partnerships studied represent institutions that are exceptions to the rule. Many institutions, including those involved in the Commonwealth Partnership and the Nation of Tomorrow project, precisely state that they are involved because their broader institutional mission requires service to the community. For these institutions, partnership activities reflect investment in their communities and society. Although many motives have been attributed to Boston University's involvement in the Chelsea Program, it is important to recognize that the university could have as easily not taken the initial steps and could have channelled its energies elsewhere. Thus, an appeal to community service will likely result in recruitment of some institutions.

Institutional self-interest was cited more often by program staff and is manifest in a host of inducements. First, substantial funding support is a critical dimension in a variety of state-mandated programs, including those in California and Florida, and in initiatives supported by foundations and other agencies. These initiatives have represented opportunities for launching or expanding outreach programs and teacher development institutes. Favorable public relations is an important perceived benefit for institutions involved in these initiatives. Few universities have received the attention that Boston University has as a result of its work with the Chelsea school district. Public relations is important both in sustaining community support and in student recruitment and alumni campaigns.

Several initiatives were launched by universities in response to particular crises. For example, the SUPER initiative located at the School of Education at Berkeley was adopted in a near-last ditch effort to prevent the School of Education's dissolution (Gifford, 1986). In the case of the partnership between the University of Maryland and Suitland High School, University High was the university's response to a desegregation suit that faced a high school in a community adjacent to the university's main campus (Brown and Greenberg, 1989).

In general, university involvement in these partnerships does not consistently occur as a normal outgrowth of the institution's goals. Some type of external or internal pressure appears needed to undertake the process.

University Faculty

Reasons why university faculty join these initiatives are varied. Participation in these initiatives, by the very nature of the projects, is often long-term and requires a serious commitment by faculty.

Participation may provide a source of income for faculty, and in some instances, program administration and activities represent a paid, full-time commitment. Other faculty are attracted by supplemental income earned for leading a seminar or class. In several instances, the level of financial support is minimal and is primarily used to facilitate meetings and ensure that participation does not require out-of-pocket costs to be borne by faculty or teachers. In some instances, participation in these initiatives

offers compensated release time from regular teaching loads for college faculty.

Opportunity for direct research is also a critical incentive for faculty, particularly among those from schools of education. Initiatives can facilitate relationships needed by faculty to conduct research in schools. Faculty research activities can also be supported by initiatives through funding of research assistance and materials.

Finally, participation in these initiatives is used by faculty at some institutions as evidence of personal community service normally expected of staff. However, there is little evidence that colleges and universities support these initiatives sufficiently to permit faculty to substitute such participation in lieu of research or teaching requirements for tenure or promotion decisions.

Schools and Districts

Incentives for school and district participation would appear to be less critical since the approach and focus of these initiatives is so closely tied with the fundamental mission of schools and districts. However, the relatively low profile of school and district involvement within the initiatives studied suggests that they are offered few incentives for involvement or the incentives are extended are inadequate.

Review shows less developed incentive structures compared to those offered universities, faculty and teachers. In many instances, school or district participation means access to increased services. For example, the Oklahoma Consortium for Excellence in Education permits schools to offer students specialized courses that would not otherwise be available, via teleconferencing (Sosniak, 1989). The STEP program of the Santa Ana Unified School District is an effort to reduce teacher turnover (Adelman, 1989).

In several instances district participation in the initiative was an attempt to address critical problems it faced. For example, the Albany High School became involved in ASAP because low levels of minority student participation in the school college preparation program had been challenged (Culler, 1986). More dramatic is the case of the Chelsea school district, which faced the prospect of state takeover, financial bankruptcy and continuing decline (Boston University/Chelsea Educational Partnership, 1990).

It is difficult to make generalizations about the incentives that impel schools and districts to become involved in these initiatives. The notion of true partnership is rare. Public schools and districts are often passive recipients of the initiatives' efforts. Gaining their involvement requires only a minor commitment on their part and assurances that the school or district won't be jeopardized.

The most disturbing aspect of the nature of school involvement in these initiatives is the weak level of partnership or commitment by districts and schools. Despite the apparent link between the objectives of these initiatives and the mission of public schools, one is struck by their modest institutional investment. Several explanations can be offered. The primary ownership of these initiatives rests with colleges and universities. Schools are notorious for distancing themselves from initiatives that are not "theirs." Issues being addressed in these initiatives–teacher renewal, curricular revision and school reform–sadly pale in the face of budget crises, debilitating poverty and racism, and personal problems facing students. Thus, the objectives of these initiatives can appear either irrelevant or useless within the context of day-to-day operations of schools. The implication of limited involvement of schools is that sustaining the effects and diffusion is highly restricted and that even the potential of initiatives is never truly tested.

School Teachers

The incentive structures for school teachers are highly developed and creative. Initiatives offer teachers a broad array of supports for participation. Teachers are paid or receive a stipend for participation. In some instances, as with university faculty, the program pays out-of-pocket expenses. In others, teacher remuneration is substantially more significant. Teachers involved in Michigan State's IRT program receive release time for participation (Porter, 1987). A number of programs–Bio-Prep, STEP, USC Writing Project, Yale-New Haven Teachers Institute–offer graduate credit for participation. Others offer the opportunity to audit classes within the university at no expense. Access to college facilities–libraries, computing facilities, etc.–is cited by many programs as an important inducement for teachers. Several programs–including the Science Program at San Diego State University and the Milwaukee Public Schools/University of Wisconsin-Milwaukee partnership (Adelman, 1989)–appoint teachers as adjunct faculty members. Programs additionally seek to enhance their professional standing by training program teachers as master teachers or as designated instructional leaders within their school and districts.

SECTION IV. CONCLUSIONS ABOUT SYSTEMICALLY FOCUSED INITIATIVES

Initiatives aimed at teacher renewal, curriculum revision and school reform reflect an approach that distinguishes them from other efforts aimed at increasing minority student access to college. Below, we reflect on some of the inherent strengths of the approach these efforts characterize. Next, we raise some continuing issues and implementational challenges that confront those who want to use such approaches within a broader community-based strategy.

STRENGTHS OF TEACHER, CURRICULUM AND SCHOOL-FOCUSED APPROACHES

The major strength of these approaches is their potential to have sustained benefits for students. These initiatives differ fundamentally from student-focused programs precisely because the primary focal points of change are teachers and schools. By contrast, most student-focused initiatives can expect to affect teachers and schools only as a possible by-product of the initiative.

The implications of this distinction are:

- The effects of the program may be sustained beyond the actual life of the initiative itself. A program may be suspended or lose funding. But to the extent that practices and strategies are fully inculcated within teachers and schools, students will continue to reap the benefits of the intervention.

- There is the potential (though often unrealized) for a ripple effect or diffusion of the intervention beyond teachers immediately involved in the initiative. Emphasis and support for master teachers and teacher trainers will permit the diffusion of the technologies, approaches and strategies to teacher colleagues who had not participated in the initiative.

- Such initiatives, by design, deal with some of the core issues of education, including curriculum content, teaching practice and school organization. By improving these critical elements within schools, the initiatives concomitantly improve the chances for students in those schools.

- Unlike student-focused initiatives, teacher and school-focused initiatives have the potential to impact all students in a school, including those who may not be college-bound. Although it is possible that such initiatives can be exclusionary, their approach provides an opportunity to improve the educational environment for all.

- When fully realized, initiatives can create forums for closer examination of the true links between elementary, secondary and collegiate tiers. At the most rudimentary level, this may be manifest through better articulation between college preparatory courses and the content of college courses. At a more advanced level, the interventions can serve as a vehicle to question or remove some of the arbitrary barriers and distinctions between high schools and colleges, and possibly to re-think the continued utility of an educational system that presumes a disjointed structure.

IMPLICATIONS

Experiences of projects reviewed in this section have several significant implications for the expansion and evolution of existing efforts and the development of new initiatives that seek to improve minority student college access through teacher renewal, curricular revision and school reform.

Access to College Resources

The programs reviewed provided participating colleges and universities with a broad range of incentives and rewards for participation. However, there remains a compelling need to broaden and deepen college involvement. Many of the initiatives–though often housed at universities or enjoying substantial college support–rarely draw significant support from other sectors or components of the university.

The desire to involve colleges and universities directly does not arise simply because their involvement adds prestige to the effort, provides a convenient place to establish an office, or strengthens direct links between schools and colleges to facilitate student admission. Rather, there is a fundamental premise that colleges and universities have an array of resources that are directly relevant to urban education and access of minority students to college.

With few exceptions, the programs described in this section do not really tap the resources available in participating colleges and universities. For some, the issue relates to mandate; the initiative is defined as a "program" with clear boundaries, responsibilities and limits within the institutions. Other initiatives may be limited by time,

operational and other constraints that prevent colleges and universities from being more creative in their support of the project.

Forging Partnerships

Although many of the programs use the term partnership when describing the relationship between colleges and schools or districts, a close reading of activities, objectives and responsibilities suggests that many initiatives lack significant involvement of schools and districts, thus undermining chances for broad, longer-term benefits to schools and students.

While districts often assert "commitment" to the goals of these partnerships, they often fail to establish policies, procedures and mechanisms to facilitate broader effects of the program. For example, project activities often lack substantial school involvement beyond the selection of participating teachers. Only in rare instances are school district personnel given responsibilities for the program that are equivalent to those assigned college personnel. Programs rarely have a district-based director with authority to ensure that district policies, staff and resources support the initiative. However, college-based administrators regularly have such responsibility.

Further, there is some anecdotal evidence that many initiatives are perceived as variants on traditional "top-down" reform strategies in which colleges and universities dispense advice and funds to willing or unwilling supplicant schools. The tendency for these initiatives to be housed within colleges or closely connected with them serves to reinforce this perception.

Ensuring Broader Effects

The major benefit associated with the initiatives described in this section and the way in which they are distinct from student-focused projects is their potential to have enduring, expansive effects for schools and students now and in the future. However, the experience of existing programs raises important questions about mechanisms to sustain the immediate effects as teachers return to their schools and, more importantly, to extend these benefits beyond teachers directly served.

Diffusion mechanisms are often ill-defined or placed beyond the purview of many initiatives. First, teachers are presumed to have substantial latitude in their ability to incorporate new strategies within their classrooms. Second, there is some expectation that the resources teachers need to use these strategies are available within schools and that additional support will be provided to sustain their efforts. Third, the initiatives appear to suggest that teachers' efforts to disseminate their new-found knowledge and techniques will be encouraged and welcomed within host schools and districts and that such dissemination will also be supported in some rational manner. However, the realities of most organizations, including schools, suggest that such assumptions are naive:

- Although teachers have some latitude within their classrooms, it rarely extends to curricular changes or modifications in delivery.

- Resources to support or permit a particular innovation are not always available within schools. Districts are often limited in their ability to provide additional support to teachers trained in a new approach or material. There often is reluctance within districts to provide additional support to teachers who, from some perspectives, have already received rewards through participation in the college-based initiative.

- Teachers who participate in these initiatives may encounter substantial resistance among their peers when they attempt to explain and implement the approach more broadly within their schools. In addition, staff development specialists within districts may themselves be resistant to such incursions into their territory. Finally, there is considerable lack of coherence in many districts for the delivery and dissemination of curricular and instructional strategies. Thus, one cannot assume that an established, working framework for dissemination can be used to promote new approaches.

Day-To-Day Relevance

Teacher renewal, curricular revision and school reform are clearly at the heart of education. The initiatives described in this section are tackling core issues. However, the pressing day-to-day crises in many urban schools, at times, push such issues from the regular agenda. Re-asserting the primacy of instructional and school renewal cannot be realistically done until other issues are addressed.

Initiatives must either accommodate or join with other projects to address the problems that prevent their central objectives from claiming a proper place within schools. The alternative is simply to accept the fact that the initiative's objectives will often remain peripheral.

Program planners need help and support in developing comprehensive strategies that can remove some of the day-to-day barriers and crises that diminish the effectiveness of instructional and school renewal ventures. Initiatives should seek to identify the broader range of factors that prevent minority student success and access to college, develop ways in which current activities can be enhanced, and form other strategies within the context of increasing minority student access to college.

Reducing Educational Segmentation

The initiatives described tend to preserve the secondary/postsecondary educational system as it exists. Few efforts challenge the validity and necessity of the current divisions of education into four-years of secondary training clearly distinct from four additional years of college education.

The potential and capacity of many initiatives will continue to be curtailed unless they and the broader educational community develop ways to break down traditional barriers in the educational system that may impede minority youth from reaching and succeeding in college.

CONCLUSION

As a nation we face a major challenge in providing access to college for all interested and prepared citizens. This challenge is most evident when we consider the glaring discrepancies between the high school completion rates, college entry rates and college completion rates of white youth in comparison with those of minority students.

Further, even such comparisons mask the substantial differences in academic success and achievements among youth who live in poverty (especially those in depressed urban areas) from their counterparts in more affluent settings. As Hodgkinson (1985) and others have eloquently noted, the changing demographic composition of the United States, coupled with the increased educational and training requirements needed to sustain our economy, democracy and society, compel us to dismiss notions that "their" success or failure does not affect "our" lives.

This report has considered a set of tangible strategies for affecting the college-going rates of minority students involving partnerships between colleges and universities and schools. While such programs do not encompass the total range of efforts designed to increase minority student access and success in college, they do represent the major thrust of college-related efforts designed to address lagging rates of minority student enrollment in higher education.

We divided the range of college/school initiatives into two classes–those focused directly on students and those focused on systemic reform. Both approaches have clear strengths.

Student-focused programs are attractive because they provide immediate, direct services to youth. They offer colleges, schools, parents and participants a strong sense of "doing something." Such programs benefit substantially by appealing to a sense of equity and altruism among program supporters.

At the same time, there are clear operational challenges and decisions that must be confronted when designing effective student-focused initiatives. Targeting is arguably the most critical determinant of the efficacy of student-focused programs in improving the college-going chances of minority youth. Reviewing existing programs has raised our concern about a tendency in many programs to provide services to the most ready and able, which, while laudable, will not substantially change the rates of college-going among minority youth. Questions of "return" and "payoff" coupled with relatively high per-participant costs appear to have encouraged many programs to focus on youth whose life chances would likely have included college entry anyway. While such efforts targeted at the more able students may have facilitated college entry or marginally increased the preparation of targeted youth, they do not, in themselves, represent a viable strategy for the broad and sweeping changes in college-going rates that are necessary.

Student-focused initiatives represent a relatively discrete way for addressing some of the problems of access. As such, they can be adopted with modest ease by all types of institutions. In fact, this is being done increasingly across the nation. However, we must recognize that such initiatives are limited in that they are aimed at treating the symptoms of a larger institutional failure of education of minorities and other youth in the United States. In fact, our review of student-focused programs revealed that many had a very limited relationship with schools that served participants. Consequently, student-focused programs have but limited potential for broadly improving the college-going chances of minority youth in a long-term, broad manner. The immediacy of their effectiveness precludes simultaneously their ability to foster longer-term, institutional change.

Systemically focused initiatives represent the other major thrust of approaches for changing the college-going rates of minority youth. Such approaches are aimed at transforming or affecting the process of education in an effort to increase the pool of all students prepared for college. However, such a transformation cannot be accomplished immediately. Consequently, systemically focused initiatives require time, longer-term support, and vigilance in diffusion if they are to reach their objectives.

In theory, systemically focused initiatives have the greatest potential for expanding and enhancing the postsecondary educational opportunities for minority youth. They seek to alter the conditions and environments in which students learn and thereby ensure that more students complete high school with mastery of skills they need to be successful in college.

Several systemically focused initiatives are just now beginning to realize this potential. They have deliberately set in place a process for enhancing curriculum, strengthening teacher skills and implementing school renewal. However, many so-called systemically focused approaches continue to be peripheral to the day-to-day issues of school operations and especially to the daily educational experiences of minority youth. Further, many systemically focused initiatives have not adequately addressed the issue of diffusing their efforts to teachers and schools not directly served. And while these initiatives have some potential for systemic change, we must also recognize that most remain very small, touching a small percentage of teachers in a limited number of schools in relatively few school districts. It is important that we not conclude that an emphasis on systemically focused initiatives, as they currently operate, will substantially redress the discrepancies in college-going rates for minority youth.

Our analyses have pointed to four basic areas that college/school partnerships must begin to address if they are to achieve broader success in changing the opportunities for minority youth to prepare for, enroll in and succeed in college.

First, as suggested throughout this report, all initiatives--student-focused and systemically-focused--must develop closer working relationships with the schools that serve minority youth for the bulk of their educational careers. Initiatives must work diligently to overcome their peripheral role to regular education.

Second, student-focused initiatives provide a tangible approach for serving youth immediately and directly. However, while such initiatives should continue and expand, they must be buttressed by increased work at affecting the overall system of schooling for students. Student-focused initiatives should consciously seek ways to address system-level issues as a natural progression in their development and expansion. They should use their work with students as a vehicle for legitimizing their entry into issues of curriculum, teacher development, instructional organization and year-round student support.

Third, existing systemically focused approaches and those that develop in the future must develop more effective strategies for diffusion of their efforts. It is clear that colleges and universities have displayed a strong supportive role in most initiatives. In fact, they dominate most initiatives. The lack of parallel involvement by school districts suggests that incentives to increase the participation of schools need to be reconsidered. Curriculum revision, professional development and movement towards school reform are most effective when they are nurtured within the school setting. Again, systemically focused initiatives must seek to become much more integrated into the operations and culture of schools that serve minority youth. To a great extent, this may mean that school districts must be invited as full and active partners, with appropriate incentives and benefits for their involvement.

Finally, it is also important to step back from both types of initiatives and recognize that, with few exceptions, most assume that the existing fragmented educational system of elementary, middle, and senior high school and college remains a viable delivery strategy for educating America's youth. Such initiatives challenge the *status quo* only over how such a system channels students towards different postsecondary options. These initiatives rarely question the broader structure of our educational system and how it is organized to serve students. Perhaps that asks too much from institutional players--schools, districts and colleges--that are part and parcel of that organizational structure. Yet, the compelling and impending realities of the near future suggest that the termination of formal education for more than half of our youth at 12th grade is inadequate and cannot be allowed to be structurally determined. An educational system that is premised on 12 years of instruction with an optional supplement of two or four years of college for a select few denies the complexities and technological needs of our nation in the 21st century.

A potential role of partnerships between schools and colleges in the future may likely be as harbingers of a reorganized, seamless system of education that values the

contributions and capability of all students and all educators. Such a role would deemphasize the notion of two institutions jointly working on a "project" and emphasize the sense of two or more institutions blending into a single educational enterprise. Such a role transformation for partnerships would require a re-thinking of their vision and their status within participating institutions. Although it is unlikely that such partnerships could, in themselves, revolutionize existing educational structures unilaterally, their experiences could provide important insights into the benefits and challenges of such a strategy.

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ENDNOTES

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2. Readers interested in obtaining additional information about particular programs described in this study or similar initiatives should consult Franklin P. Wilbur and Leo M. Lambert's *Linking America's Schools and Colleges: A Guide to Partnerships and National Directory* (1991). Wilbur and Lambert maintain an active database about selected program characteristics and contact information.

3. CAPD's finding that little evaluation evidence is available is not surprising. Many initiatives are too new to warrant or to have completed an assessment. Initiatives' emphasis on providing services--often a condition of continued funding and support--has remained their paramount concern and research on effectiveness has remained a secondary issue. Finally, the relatively limited or diversified population (i.e. drawn from many schools) served by these initiatives coupled with relatively scarce available resources effectively precludes conducting rigorous research on program impacts.

4. The two most developed research studies were conducted with two national initiatives receiving substantial federal or foundation support--Upward Bound and Career Beginnings. In the case of Upward Bound, the last impact analysis was completed 10 to 12 years ago. The Upward Bound analysis used a matched comparison sample drawn from schools attended by Upward Bound participants and does not control for self-selection bias (U.S. Department of Education, 1980). (In Spring 1992, the Department of Education awarded a contract to Mathematica Policy Research to undertake a five-year comprehensive review and impact evaluation involving a higher rigorous research design to assess the effectiveness of Upward Bound and other TRIO programs.) Career Beginnings had a rigorous evaluation design including random assignment to control and treatment groups (Cave and Quint, 1990).

5. The experiences of the "I Have a Dream Foundation" initiatives offer some insights into this issue. The requirement that a social worker/support staff person be assigned to the target class to address the array of students' family, social and personal needs speaks to the extensive demands placed on programs that start early in a student's academic career.

6. A near-replication of SOAR has been implemented in Baltimore through a partnership between Johns Hopkins University and Dunbar High School. It has a set of strongly articulated academic components it recommends to participants.

7. It is useful to note that many communities probably have a range of programs that span the middle and high school years. The few examples reviewed in this report are distinct because there is a conscious effort to at least bring them together under some organizational umbrella.

8. These principles were derived from the experiences of student-focused programs, supplemented by research findings related to academic achievement in secondary school, and studies of initiatives and programs that serve minority and disadvantaged youth.

9. We make a distinction here between the upgrading of teachers' knowledge and the upgrading or updating of curriculum. Initiatives that focus on the *production* of curricular units are described in more detail below, in the curriculum-focused section.

10. It is important to note that efforts towards instructional re-tooling have not been exclusively confined to partnerships involving colleges and universities. Teacher development activities sponsored by progressive school districts and professional associations have long provided teachers with opportunities to learn instructional methods. Interest in college/school partnerships derives from those who seek to use training in alternative teaching approaches as a method for ensuring that more disadvantaged and minority students succeed in school as teaching becomes more responsive to their learning needs.

11. In fact, even the initiatives described that emphasized teacher development generally direct some attention towards the curricular reform as well.

12. Interestingly, the partnership began as a student-focused component, the Albany Dreamers. Modelled after Eugene Lang's effort in East Harlem, the sponsors stipulated that SUNY-Albany would serve as administrator of the program. The partnership between the university and the Albany school district has continued to grow and branch out from this seed.

13. CASEC is a consortium of 600 schools affiliated with University of Illinois-Chicago.

14. In Project STEP, the University of California, Irvine helps with curriculum construction with teachers from Santa Anna school district; Rancho Santiago College trains peer tutors; California State University, Fullerton advises/counsels students on changing university admission requirements in the California system; and Chapman College works with teacher aides to certify them as regular teachers in California (National Conference on School College Collaboration, 1990).

15. The colleges involved are Allegheny College, Bryn Mawr College, Bucknell University, Carnegie-Mellon University, Chatham College, Dickinson College, Franklin & Marshall College, Gettysburg College, Haverford College, Lafayette College, Lehigh College, and Swarthmore College.

16. It is important to distinguish between initiatives that seek to draw together a group of teachers from many districts and initiatives that target several districts. The former approaches simply require individual teachers, with or without the support of their districts, to participate in the program. The latter approaches specifically target teachers within a selected set of districts.

17. This was also one of only two partnerships reviewed that teamed a high school with a junior or community college, perhaps indicating that the traditional hierarchical relations between secondary and postsecondary schools are easier to transcend when a four-year institution is not involved (College Board, 1987).

18. Between 1984 and 1987, CAPP supported a total of 20 curriculum development projects, as well as three diagnostic testing projects; since then it has continued to support two curriculum development projects as models for others to emulate (Project STEP is one of these), and added seven new ones.

19. In fact, projections of impending declines in applications and enrollment have been confusing. Many institutions anticipated a substantial drop in enrollment as the end of the baby-boom generation passed college age. However, the decline never materialized. More significant was a downward trend in minority student participation during the past two decades. However, even in this area the trend has not been uniform as black enrollments increased for several years. Further, overall enrollment rates have fallen in the current year apparently as a result of recessionary pressures, perceived tightening of financial assistance program requirements, and uncertainties over the crisis in the Middle East.

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